

Environmental Science & Engineering, Inc.



A CILCORP Company



R00111069

RCRA RECORDS CENTER

A4



**KEOKUK DIVISION**

3200 Main Street  
P.O. Box 2230  
Keokuk, Iowa 52632-2230  
Telephone: (319) 524-4560

March 6, 1991

Mr. Don Lininger  
RCRA/IOWA Section  
U.S. Environmental Protection Agency  
726 Minnesota Avenue  
Kansas City, Kansas 66101

Re: Schlegel-Keokuk Division Plant  
Keokuk, Iowa  
EPA ID No. IAD005136023

**RECEIVED**

MAR 7 1991

**IOWA SECTION**

Dear Mr. Lininger:

Enclosed are two copies of the revised Closure Certification & Documentation Report as requested in Ms. Baerbel Schiller's letter of January 28, 1991. To aid in your review of the enclosed document, identified below are the locations of the specific responses to Ms. Schiller's letter. The Number and letter designations correspond to those in Ms. Schiller's Letter.

- 1.a. A site map drawn to scale with the legal boundaries of the facility is provided in the map pocket at the back of the report.
- 1.b. The locations of the background soil samples are identified on the map in the map pocket.
- 1.c. A figure showing the locations of the additional soil samples is provided in the Appendix D.
- 1.d. A figure showing the boundaries of the soil excavations is provided in Appendix D.
2. The analytical methods are identified in the last paragraph in section 3., Attachment E.
3. A copy of the completed manifest is included in Appendix E.
4. The additional activities are described in the last paragraph in section 5., Attachment E.
5. QA/QC data have been added to Attachment I.
6. The additional information regarding the four background soil samples is provided at the end of the first paragraph in Section 3., Attachment E.



7. As Mr. Guariglia discussed with you by telephone on February 22, 1991 the contents of Attachment G have been removed and replaced with a copy of Ms. Schiller's letter.

We hope the above responses are satisfactory. Please feel free to call me if you require clarification or additional information.

Sincerely,

A handwritten signature in cursive script, appearing to read "Wm Vandersall".

William Vandersall  
Environment Services Manager

WV/smm



Environmental  
Science &  
Engineering, Inc.

March 7, 1991

USEPA - Region VII  
726 Minnesota Avenue  
Kansas City, KS 66101

Re: Schlegel Keokuk Plant  
formerly Sheller Globe Corporation  
Keokuk, Iowa

Gentlemen:

Enclosed are two revised copies of the closure documentation for the above referenced facility. Please discard the two copies sent under separate cover from Schlegel, which were incorrectly assembled.

If there are any questions, please contact the undersigned.

Sincerely,

ENVIRONMENTAL SCIENCE & ENGINEERING, INC.

*Ken D. Konter /dm*

Ken D. Konter, CHMM  
Project Leader  
Industrial/Audit Services

Enclosures

KDK:ldm-34

RECEIVED  
MAR 8 1991  
IOWA SECTION

Closure Certification  
and  
Documentation Report  
Sheller Globe Corporation  
Keokuk, Iowa  
EPA I.D. No. IAD005136023

Prepared by:

Randolph & Associates, Inc.  
8901 N. Industrial Road  
Peoria, Illinois 61615

August 14, 1989

RAI Job No. 1-0993-003.01

RECEIVED  
MAR 8 1991  
IOWA SECTION



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I.	Closure Certification	1
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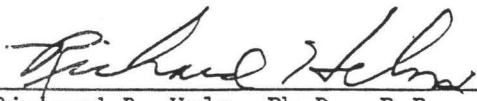
LIST OF ATTACHMENTS

<u>NO.</u>	<u>DESCRIPTION</u>
A.	Original Closure Plan Submittal(s) (10-16-86), (7-24-85)
B.	Tentatively Approved Closure Plan With Letter from U.S. EPA to Sheller-Globe Modifying Closure Plan (9-27-88)
C.	Public Notice
D.	Letter of Formal Approval of Closure Plan (12-29-88)
E.	Closure Field Investigation Sampling and Soil Removal Report
F.	Summary of All Laboratory Reports
G.	Site Risk Assessment
H.	Laboratory Reports
I.	QA/QC Data

RCRA CLOSURE CERTIFICATION  
(40 C.F.R. 264.115)

Facility: Sheller-Globe Corporation  
3200 Main Street  
Keokuk, Iowa 52632  
EPS ID# IDA 005136023

Based on the RCRA closure work completed and documented in the following report, we certify that the site has been closed, to the best of our knowledge, in accordance with the specifications contained in the approved September 27, 1988 Closure and Post Closure Plan as modified by the October, 1988 USEPA Region VII letter and by telephone consultations with Region VII personnel.

  
Richard B. Helm, Ph.D., P.E.  
Manager of Environmental Engineering  
Randolph & Associates, Inc.





ATTACHMENT A

ORIGINAL CLOSURE PLAN SUBMITTAL



## SHELLER-GLOBE

October 16, 1986

Mr. Michael J. Sanderson  
Chief, RCRA Branch  
U.S. Environmental Protection Agency  
726 Minnesota Avenue  
Kansas City, KS 66101

Dear Mr. Sanderson:

This letter is in reference to the status of the hazardous waste storage permit at our manufacturing facility located in Keokuk, Iowa. The Sheller-Globe Corporation, due to a recent merger, does not qualify for use of the financial test to demonstrate financial responsibility for liability coverage of hazardous waste stored at our manufacturing facilities. We have been unsuccessful in obtaining environmental liability insurance coverage from a private insurance company. Since we are unable to obtain the required liability coverage, we are downgrading our hazardous waste storage activity for facilities which had interim status approval to store for more than 90 days to generator status with storage for less than 90 days.

Our manufacturing plant located in Keokuk, Iowa, has approved interim status to store hazardous waste drums for more than 90 days. The EPA I.D.# for this facility is IAD005136023.

We are enclosing a Closure Plan for this facility for your Agency's review and approval. Upon your Agency approval, this Closure Plan will be implemented immediately.

We are presently arranging removal and disposal of all accumulated hazardous waste at this facility. After the accumulated hazardous waste has been removed, this facility will mark all hazardous waste containers with the appropriate date of generation. All hazardous waste will be removed and disposed of within 90 days of generation. We will inform your Agency as soon as we remove all accumulated hazardous waste at this facility and are storing hazardous waste less than 90 days.

RECEIVED

OCT 23 1986

USEPA, RCRA Branch

Mr. Michael J. Sanderson -2-

October 16, 1986

If you have any questions or need additional information concerning the enclosed Closure Plan or this letter, please contact myself or Jeffery Bruestle at this office.

Sincerely,

SHELLER-GLOBE CORPORATION

  
Gregory D. Sautter  
Manager of Environmental Activities

GDS/mem

Enclosure

cc: R. Ransford  
J. Bruestle  
Iowa Department of Water, Air and Waste Management  
Henry A. Wallace Building  
900 East Grand  
Des Moines, Iowa 50319



SHELLER-GLOBE CORPORATION  
KEOKUK PLANT  
CLOSURE AND POST CLOSURE PLAN

The following plan shall be implemented when this facility downgrades its hazardous waste storage activity from more than 90 days to less than 90 days.

A. GENERAL INFORMATION

The Sheller-Globe Plant in Keokuk, Iowa, is used to make extruded and molded rubber weatherstripping and molded polyurethane dashboards for automotive applications.

Flammable waste solvents from cleaning and painting operations are placed in 55-gallon drums and stored in an outside hazardous waste storage area.

Non-flammable wastes including chlorinated solvents, isocyanates and urethane polyols are stored in an outside storage area in 55-gallon drums.

The facility is surrounded by manufacturing, agricultural, and residential areas. It is located near the northern edge of the city limits of Keokuk which has a population of 10,000 persons.

The plant is located at: 3200 Main Street  
Keokuk, Iowa 52632

EPA ID#: IAD 005136023

The hazardous waste storage areas are located within a fenced area. Access to the plant is limited to authorized personnel or guests escorted by authorized personnel during working hours. Off-hours and week-ends the facility is locked up and patrolled by security personnel.

B. ESTIMATE OF THE YEAR OF CLOSURE

1. While the main activity of this facility is manufacturing, hazardous wastes generated by on-site operations are stored on-site for more than 90 days.
2. The closure plan will be submitted to the US EPA Regional Administrator and the Iowa Department of Air, Water and Waste Management prior to implementation of the closure plan.

C. INVENTORY

1. The maximum inventory at this facility of hazardous waste in storage at any given time prior to closure is:

Drum storage isocyanate	50 drums
Drum storage flammable solvent	70 drums
Drum storage chlorinated solvent	70 drums
Drum storage liquid hazardous waste, n.o.s.	10 drums

2. In addition to the hazardous waste in the storage area prior to closure, other types of hazardous wastes may be generated by the closure. They would include wastewater used to decontaminate the storage area.

a. Drum storage of waste wash 3 drums

All solvents will be sent to a reclamation facility if possible. Waste which cannot be reclaimed or reused will be sent to an approved hazardous waste disposal facility.

#### D. CLOSURE ACTIVITIES

The following are the steps taken to close and decontaminate the hazardous waste storage areas at the plant in Keokuk. These closure activities will be initiated immediately upon receipt of the final approval of this Closure Plan.

##### 1. Site Description

There are two areas (see Figure A) in which hazardous wastes have been or are presently stored at the plant.

- a. Site #1 is in front of the flammable liquid and mix storage building located behind the plant. The area has storage capacity for approximately 200-300 drums of hazardous waste. The storage area is asphalted and is bordered by grass on the south and west sides. The use of this site for hazardous waste storage was discontinued.
- b. Site #2 is behind (west) the flammable liquid mix and storage building. This storage area is presently being used to store hazardous waste. This storage area is asphalted and is bordered by grass on the south and west side.

##### 2. Description of Closure

- a. All hazardous waste in storage shall be inventoried and inspected for proper packaging, identification and labeling. Any hazardous waste not properly packaged or labeled shall be segregated.
- b. All waste material in the storage area shall be consolidated by placing compatible material in proper drums, i.e., non-halogenated solvent with non-halogenated solvent, etc.
- c. All waste drums in the storage area shall be marked, labeled and inventoried in accordance to their content.
- d. Below is a list of the facilities which may be used to recycle and/or dispose of waste generated by this closure:

- |                                     |                  |
|-------------------------------------|------------------|
| 1) Peoria Disposal Co.              | ID# ILD000805812 |
| 2) Ross Incineration Services, Inc. | ID# OHDO48415665 |
| 3) Waste Research & Reclamation Co. | ID# WID990829475 |

- e. After the removal of all hazardous waste from the drum storage areas, the location will be inspected for spillage and contaminated soil. The following is the decontamination procedure to be conducted on the drum storage areas:

DECONTAMINATION PROCEDURE

Drum Storage Areas

When the drums have been removed from Storage Site #1 and all hazardous waste drums have been removed from the drum storage area (Site #2), these locations will first be visually inspected for spillage and for soil contamination in the areas adjacent to the storage areas. If any spillage or residue is evident, they will be removed by scraping or chiseling. All scrapings will be swept up, placed in appropriate containers and handled as a hazardous waste. The storage area floor will then be washed with a detergent solution and rinsed with clean water. All wash and rinse water will be collected and placed into 55-gallon drums. A sample of wastewater will be analyzed for volatile organics by U.S. EPA Method 824 and 825. When the analytical results are received and reviewed, the disposal of this wastewater will be either into the sanitary sewer or handled as a hazardous waste.

After removal of the visually evident spillage, the soil in the area adjacent to the drum storage area will be sampled with 6" deep soil core samples at ten foot intervals, one foot from the edge of the outside concrete storage areas. One background soil sample will be taken and analyzed to determine basis for contamination.

These soil core samples will be analyzed for volatile organics by U.S. EPA Method 824 and 825 from The Test Methods for Evaluating Solid Wastes, 1980. If contamination is confirmed, the soil will be removed and the same sampling procedure repeated until samples confirm non-contamination. All contaminated soil will be disposed of at an approved location, listed in Section D (2).

Disposal of soil in contaminated area. Although the soil is not expected to be contaminated by the drum storage at Keokuk, an allowance has been made in the closure costs for removal and disposal of approximately 80 yd<sup>3</sup>. It is assumed that 1 yd<sup>3</sup> of soil will weigh approximately 1 ton.

- h. Closure of the hazardous waste storage area of this facility should be completed within 180 days after the approval of the closure plan. (See the attached anticipated closure schedule, Item 1.)



- i. During closure, a qualified independent registered professional engineer shall inspect this facility on the time periods during closure listed below:

Implementation of closure  
Implementation of decontamination procedure  
Implementation of soil sampling  
Completion of closure

If the facility has not been closed in accordance with the specifications of this closure plan, corrective measures shall be instituted. If the facility has been closed properly, a certification of that fact shall be submitted by Sheller-Globe Corporation, and the independent registered professional engineer to U. S. Environmental Protection Agency Region VII Administrator and the Iowa Department of Air, Water and Waste Management.

- j. Upon completion and certification of closure, all records, tests, permits, manifests, etc., concerning the generation, handling and storage of hazardous waste at this facility shall be kept at their facility until the final closure of this facility is implemented at which time all records will be forwarded to the Corporate Manager of Environmental Control and stored in appropriate files. Location of these at that time files will be forwarded to the appropriate regulatory agencies.

D. POST CLOSURE

Post Closure care is not applicable since hazardous wastes generated on this site were only temporarily stored at this facility. All hazardous waste on site will be removed for permanent disposal according to RCRA regulations. The hazardous waste storage area will be decontaminated.

E. INCOMPATIBLE WASTES

Incompatible wastes are stored in the inside drum storage area. One waste, isocyanate, which is considered a hazardous waste, is stored in the hazardous waste drum storage area. The other waste, polyol, which is also considered non-hazardous, is stored in the non-hazardous drum storage area. These two waste materials are separated from each other by a dike or trench.

All ignitable wastes are stored in the hazardous waste area which is a no smoking area and is located more than 50' from our property line.

SHELLER-GLOBE CORPORATION

KEOKUK PLANT - CLOSURE AND POST CLOSURE PLAN

Page 5

F. EQUIPMENT AND MATERIAL AVAILABLE AT THE KEOKUK PLANT

Fork trucks - 2

Empty 55/gallon drums - 100

Personnel safety equipment such as rubber gloves, boots, head protection, respirators, solvent resistant coveralls, etc.

Pumps - solvent resistant

Rinsing solvent - acetone, 500 gallons or isopropyl alcohol

Absorbent material

Hazardous waste labels

Personnel - to implement closure plan

G. EQUIPMENT AND MATERIAL FROM OTHER SOURCES

Laboratory support - A & L Midwest Laboratory; Omaha, Nebraska

Soil removal equipment, backhoe, etc. - Rose Brothers, Keokuk, Iowa

Hazardous waste storage containers - Chemical Waste Management

SHELLER-GLOBE CORPORATION  
KEOKUK PLANT  
Closure and Post Closure Plan (Cont.)  
Page 6

G. COST ESTIMATE FOR CLOSURE

Labor\*

a. Equipment decontamination (40 hr x \$25/hr)	\$1,000
b. Consolidation and identification of hazardous waste drums (80 hr x \$25/hr)	2,000
c. Storage area decontamination (80 hr x \$50/hr)	4,000
d. Sampling and loading drums (40 hr x \$25/hr)	1,000
	<u>\$8,000</u>

Equipment and Outside Services

a. Soil core sampling (15 samples x \$50/sample)	\$ 750
b. Soil core analyses (15 samples x \$500/sample)	7,500
c. Laboratory testing (40 samples x \$100/sample)	4,000
d. Expendable - gloves, boots, coveralls, drums, absorbent, etc.	10,000
e. Backhoe (if required) (10 hr x \$60/hr)	600
f. Washing solvent (10 drums x \$140/drum)	1,400
g. Drum transportation (4 truckloads x \$600/trip)	2,400
	<u>\$26,650</u>

Disposal

a. Waste flammable liquids (70 drums x \$100/drum)	\$ 7,000
b. Waste chlorinated solvent (70 drums x \$100/drum)	7,000
c. Waste Isocyanate (50 drums x \$200/drum)	10,000
d. Miscellaneous hazardous waste (10 drums x \$200/drum)	2,000
e. Contaminated soils (if required) (80 yd <sup>3</sup> x \$60/yd <sup>3</sup> )	4,800
	<u>\$30,800</u>

Certification of Closure

a. Cost of professional engineer and certification (10 days x \$400/day)	<u>\$ 4,000</u>
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SUBTOTAL COST - \$69,450

Contingency for additional sampling labor,  
disposal, equipment, etc.  
15% of subtotal cost

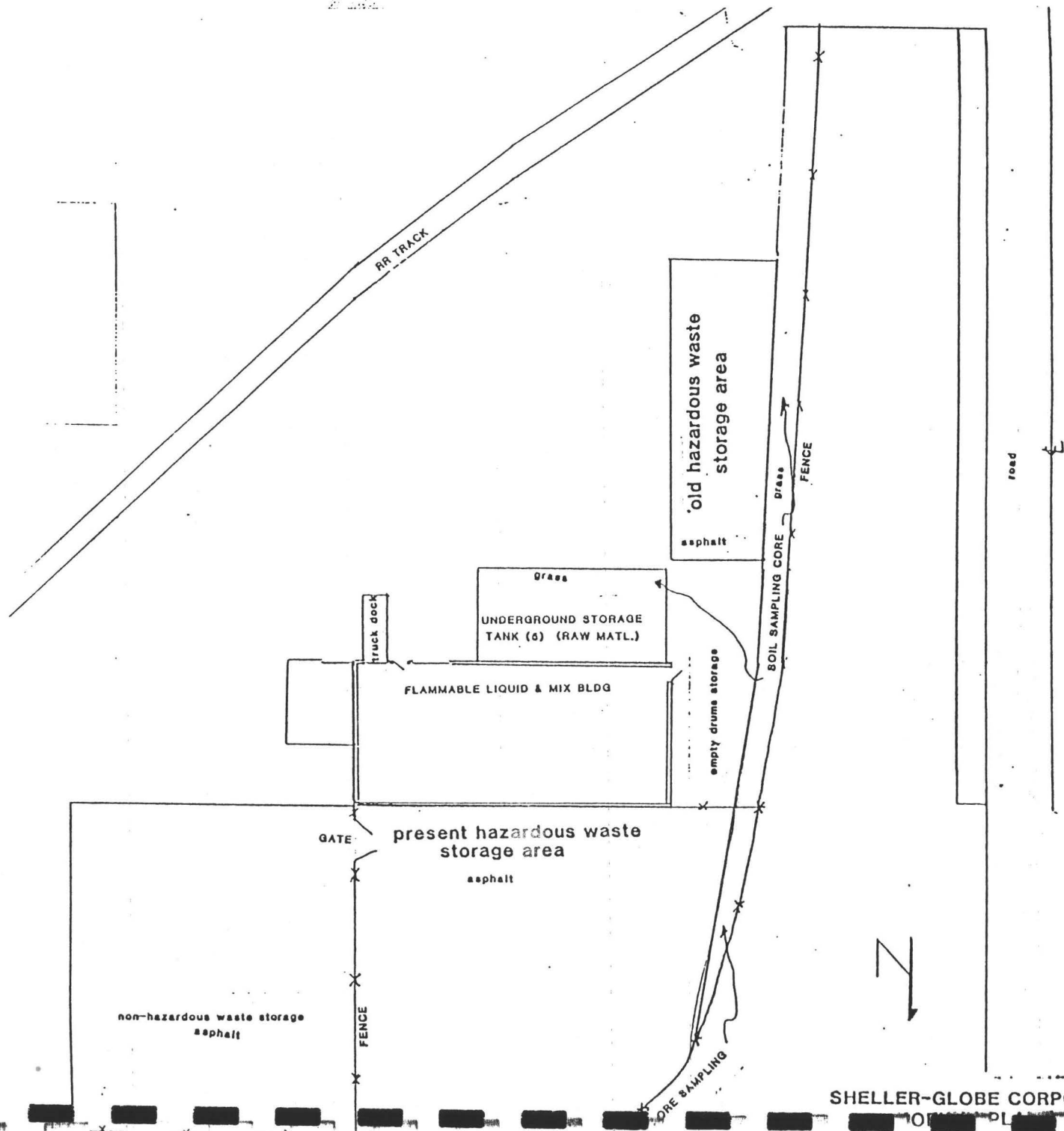
\$10,400

TOTAL ESTIMATED CLOSURE COST (1986) - \$79,850

\*Labor cost reflects the use of outside contractors. Normally, we would use our own employees for closure.

ITEM 1  
ANTICIPATED CLOSURE SCHEDULE  
Sheller-Globe Corporation - Keokuk Plant

[illegible]



SHELLER-GLOBE CORPORATION



# SHELLER-GLOBE

July 24, 1985

Mr. Michael Sanderson  
Chief, RCRA Branch  
U.S. Environmental Protection Agency  
726 Minnesota Avenue  
Kansas City, KS 66101

Dear Mr. Sanderson:

Attached you will find a revised closure plan for the hazardous waste storage area at our plant in Keokuk, Iowa (IAD005136023). The plan has been revised to address comments recently received from the Iowa Department of Water, Air and Waste Management.

I have asked our plant personnel at Keokuk to review the closure plan and see if any of the material needs to be updated. If they feel that changes need to be made, then these will be handled as an amendment to this plan.

Our Corporate fiscal year ends on September 30. Unless we receive additional instructions from your office, we will plan on submitting the updated financial assurance documentation, reflecting the closure costs estimated in this closure plan, within 90 days of that date.

Please contact me at 419/476-8901 if you have any questions about this closure plan and forward any comments or recommendations to my attention.

Sincerely,

*Jeffery L. Bruestle*  
Jeffery L. Bruestle, P.E.  
Environmental Control Engineer

JLB/mem

Attachment.

cc: Dick Adkins  
Robert Ransford

RECEIVED

JUL 30 1985

USEPA, RCRA Branch

SHELLER-GLOBE CORPORATION

KEOKUK PLANT

CLOSURE AND POST CLOSURE PLAN

EPA Facility I.D. Number: #IAD005136023

Owner: Sheller-Globe Corporation  
1505 Jefferson Avenue  
Toledo, OH 43697  
(419) 255-8840

Facility Address: 3200 Main Street  
Keokuk, Iowa 52627  
(319) 524-4560

A. GENERAL FACILITY DESCRIPTION

The Sheller-Globe Keokuk Plant manufactures rubber and plastic parts, primarily for the automobile industry. Hazardous wastes generated at this site consist of spent solvents, paint sludge and toluene diisocyanate wastes. No hazardous wastes are received from any off-site facilities.

Hazardous wastes which are generated are initially taken to a staging area inside the plant. The staging area has a concrete base and generally contains no more than four 55-gallon drums of waste. From the staging area, the drums are taken to the hazardous waste storage area outside of the plant. The drum storage area consists of a fenced area approximately 50 feet square which has an asphalt base. Paved areas border the storage area on the north and west sides. The area surrounding the south and east sides is an unpaved hillside which slopes to the south and east. The storage area itself is on a slight incline to the southeast.

B. IMPLEMENTATION OF CLOSURE PLAN

At the present time, closure of the hazardous waste storage area is expected to occur in the year 2025. Closure prior to this date would be initiated if:

- a) manufacturing activities at this plant cease;
- b) manufacturing processes are modified to eliminate the generation of hazardous waste, or;
- c) The plant demonstrates that it can properly dispose of hazardous wastes within 90 days of their generation. This condition would require the plant to apply for generator status instead of the presently permitted status as a storage facility.

The U.S. EPA Regional Administrator and the Iowa Department of Water, Air and Waste Management will be notified 180 days prior to the initiation of the closure activities.

SHELLER-GLOBE CORPORATION

LEOKUK PLANT

Closure and Post Closure Plan (Cont.)

C. INVENTORY OF HAZARDOUS WASTES

The following hazardous waste materials have been stored at this facility:

Spent non-halogenated solvents F003 and F005  
Spent halogenated solvents F002  
Paint sludge D008  
Toluene diisocyanate waste U223

The maximum inventory of hazardous wastes which will be in storage at this facility at any time prior to closure is 200 drums of material.

D. DESCRIPTION OF CLOSURE

1. All hazardous waste in storage shall be inventoried and inspected for proper packaging, identification and labeling. Any hazardous waste not properly packaged or labeled shall be segregated.
2. Any material to be discarded or disposed of which cannot be properly identified shall be treated as hazardous waste. All unidentified material shall be tested for ignitability, corrosivity and EP toxicity for all listed metals.
3. All process (manufacturing) equipment, raw material storage tanks, and piping which contained or used hazardous material will be rinsed or washed with a suitable solvent (isopropyl alcohol or acetone). All solvent washings will be placed in 55-gallon drums, labeled and taken to the hazardous waste storage area. It is estimated that ten (10) 55-gallon drums of washing solvent will be used.
4. All waste material in the storage area shall be consolidated by placing compatible material in proper drums, i.e., non-halogenated solvent with non-halogenated solvent, etc.
5. All waste drums in the storage area shall be marked, labeled and inventoried in accordance to their content.
6. Below is a list of the facilities which may be used to recycle and/or dispose of waste generated by this closure:

a. Clayton Chemical	ID#ILD066918327	Reclaimer
b. Chemical Waste Management, Inc.	ID#LAD000777201	Disposal
c. Chemical Waste Management, Inc.	ID#ALD000622464	Disposal
7. After the removal of all hazardous waste from the drum storage areas, the location will be inspected for spillage and contaminated soil. The following is the decontamination procedure to be conducted on the drum storage areas:



DECONTAMINATION PROCEDUREDrum Storage Area

After all of the drummed materials have been removed, the staging area will be visually inspected for evidence of spillage or other contamination. Any spillage or residue will be absorbed with an industrial absorbent or swept or scraped from the surface of the concrete. All decontamination residues will be placed in appropriate containers and handled as hazardous waste. These materials will be taken to an EPA approved disposal facility.

Drum Storage Area

After the removal of all hazardous waste drums from the drum storage area, the location will be visually inspected for evidence of spillage or other contamination on the asphalt pad and adjacent soil. Any spillage or residue will be absorbed with an industrial absorbent or swept, scraped or shovelled from the ground or asphalt surface.

After removal of the visually evident spillage, the soil on the south and east sides of the drum storage area will be sampled by taking 1' deep soil core samples at ten foot intervals, two feet from the edge of the asphalt. One soil core sample will be taken from soil beneath the center of the asphalt pad and two samples will be taken from soil at the bottom of the hill on the south and east sides of the storage area. A background soil sample will be taken from the field north of the manufacturing plant. This will result in a total of fifteen soil core samples being collected.

All samples will be collected, handled, and analyzed according to methods in "US EPA Test Methods for Evaluating Solid Waste" (SW-646), or equivalent methods if prior approval is obtained from the US EPA Regional Administrator. The samples will be analyzed for the waste materials which are stored on-site as listed in Section C. If contamination is discovered, the soil will be removed and the sampling procedure repeated until sample analyses confirm decontamination. Decontamination will be to background levels unless approval for other levels of contamination is obtained from the US EPA Regional Administrator. All contaminated soil will be handled as hazardous waste and will be disposed of at an EPA approved location.

Disposal of soil in contaminated area. Although the soil is not expected to be contaminated by the drum storage at Keokuk, an allowance has been made in the closure costs for removal and disposal of approximately 80 yd<sup>3</sup>. It is assumed that 1 yd<sup>3</sup> of soil will weigh approximately 1 ton.

SHELLER-GLOBE CORPORATION

KEOKUK PLANT

Closure and Post Closure Plan (Cont.)

8. Closure of the hazardous waste storage area of this facility should be completed within 180 days after the approval of the closure plan. (See the attached anticipated closure schedule, Item 1.)
9. During closure, a qualified independent Iowa registered professional engineer shall inspect this facility on the time periods during closure listed below:
  - a. Implementation of closure
  - b. Implementation of decontamination procedure
  - c. Implementation of soil sampling
  - d. Completion of closure

If the facility has not been closed in accordance with the specifications of this closure plan, corrective measures shall be instituted. If the facility has been closed properly, a certification of that fact shall be submitted by Sheller-Globe Corporation, and the independent registered professional engineer to U. S. Environmental Protection Agency Region VII Administrator and IDAWHWM.

E. POST CLOSURE

Post Closure care is not applicable since hazardous wastes generated on this site were only temporarily stored at this facility. All hazardous waste on site will be removed for permanent disposal according to RCRA regulations. The hazardous waste storage area will be decontaminated.

F. INCOMPATIBLE WASTES

Incompatible wastes are stored in the outside drum storage area. One waste, toluene diisocyanate, which is considered a hazardous waste, is stored in the hazardous waste drum storage area. The other waste, polyol, which is considered non-hazardous, is stored in the non-hazardous drum storage area. These two storage areas are separated from each other by a fence.

All ignitable wastes are stored in the hazardous waste area which is a no smoking area and is located more than 50' from our property line.

G. EQUIPMENT AND MATERIAL AVAILABLE AT THE KEOKUK PLANT

Fork trucks - 2

Empty 55/gallon drums - 100

Personnel safety equipment such as rubber gloves, boots, head protection, respirators, solvent resistant coveralls, etc.

Pumps - solvent resistant

Rinsing solvent - acetone, 500 gallons or isopropyl alcohol

Absorbent material

Hazardous waste labels

Personnel - to implement closure plan

SHELLER-GLOBE CORPORATION

KEOKUK PLANT

Closure and Post Closure Plan (Cont.)

EQUIPMENT AND MATERIAL FROM OTHER SOURCES

Laboratory support - A & L Midwest Laboratory, Omaha, Nebraska

Soil removal equipment, backhoe, etc. - Rose Brothers, Keokuk, Iowa

Hazardous waste storage containers - Chemical Waste Management

## SHELLER-GLOBE CORPORATION

## KEOKUK PLANT

## Closure and Post Closure Plan (Cont.)

H. COST ESTIMATE FOR CLOSURELabor\*

a. Equipment decontamination (40 hr x \$25/hr)	\$1,000
b. Consolidation and identification of hazardous waste drums (80 hr x \$25/hr)	2,000
c. Storage area decontamination (20 hr x \$25/hr)	500
d. Sampling and loading drums (40 hr x \$25/hr)	<u>1,000</u>
	<u>\$4,500</u>

Equipment and Outside Services

a. Soil core sampling (15 samples x \$50/sample)	\$ 750
b. Soil core analyses (15 samples x \$250/sample)	3,750
c. Laboratory testing (40 samples x \$100/sample)	4,000
d. Expendable - gloves, boots, coveralls, drums, absorbent, etc.	10,000
e. Backhoe (if required) (10 hr x \$60/hr)	600
f. Washing solvent (10 drums x \$140/drum)	1,400
g. Drum transportation (4 truckloads x \$600/trip)	<u>2,400</u>
	<u>\$22,900</u>

Disposal

a. Paint sludge (80 drums x \$100/drum)	8,000
b. Waste flammable solvents (40 drums x \$100/drum)	\$ 4,000
c. Waste chlorinated solvent (30 drums x \$100/drum)	3,000
d. Waste Isocyanate (50 drums x \$200/drum)	10,000
e. Contaminated soils (if required) (80 yd <sup>3</sup> x \$60/yd <sup>3</sup> )	<u>4,800</u>
	<u>\$29,800</u>

Certification of Closure

a. Cost of professional engineer and certification (5 days x \$400/day)	<u>\$ 2,000</u>
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SUBTOTAL COST - \$59,200

Contingency for additional sampling labor,  
disposal, equipment, etc.  
15% of subtotal cost

\$ 8,900TOTAL ESTIMATED CLOSURE COST (1985) - \$68,100

\*Labor cost reflects the use of outside contractors. Normally, we would use our own employees for closure.

## ITEM 1

[illegible]

SHELLER-GLOBE CORPORATION

KEOKUK PLANT

Closure and Post Closure Plan

This closure cost estimate will be kept on file at the Keokuk Plant. It will be revised whenever a change in the closure plan affects the cost of closure. It will be adjusted annually (from the date of its original development) to reflect changes in closure cost brought about by inflation. The Department of Commerce's Annual Implicit Price Deflator for Gross National Product\* will be used to make this adjustment.

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\* Published by U.S. Dept. of Commerce in its monthly publication "Survey of Current Business."

ATTACHMENT B

TENTATIVELY APPROVED CLOSURE PLAN  
WITH LETTER FROM U.S. EPA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
726 MINNESOTA AVENUE  
KANSAS CITY, KANSAS 66101

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Mr. A. C. Edgar  
Environmental Services Manager  
Sheller-Globe Corporation  
3200 Main Street  
P.O. Box 727  
Keokuk, Iowa 52632

Re: Closure Plan  
Sheller-Globe Corporation  
EPA ID No. IAD005136023

Dear Mr. Edgar:

I have made the tentative decision to approve the September 27, 1988, Closure Plan for Sheller-Globe Corporation, Keokuk, Iowa, with modifications. The modifications entitled "Sheller-Globe Corporation - Closure Plan Amendments" have been enclosed for your consideration. These amendments have been prepared by the EPA after a thorough review of the Closure Plan. A copy of the Administrative Record being made available for public review has also been enclosed.

The public notice is scheduled to be published in the Daily Gate City on Monday, November 14, 1988. The public comment period will begin on November 16, 1988, and continue through December 15, 1988. You are invited to submit comments until the close of the comment period. Any comments or requests should be in writing and follow the procedures in 40 Code of Federal Regulations Part 265.112.

We appreciate your assistance in providing information during the closure plan review process. Please contact Gary Kelso of my staff at (913) 236-2387 if you have questions regarding the closure plan modifications or the public comment process.

Sincerely yours,

*David A. Wagner*  
David A. Wagner

Director, Waste Management Division

Enclosure

cc: Pete Hamlin, IDNR



SHELLER-GLOBE CORPORATION - CLOSURE PLAN AMENDMENTS

October, 1988

The following modifications made to the September 27, 1988, version of the closure plan for Sheller-Globe Corporation, Keokuk, Iowa facility (EPA ID No. IAD005136023) shall supersede any statements made elsewhere in the closure plan or its attachments.

- 1) The third paragraph of the Introduction on page one is deleted and replaced by the following:

"Flammable waste solvents (D001, F003, F005), chlorinated waste solvents (F002), waste isocyanates (U223), waste paint and paint sludge (D001, D008), and other hazardous wastes are placed in 55-gallon drums and stored in the current hazardous waste storage area. This outdoor storage area will be closed in accordance with this plan. Hazardous wastes will then be accumulated in the current storage area for less than 90-day periods.

- 2) The second sentence of the Old Hazardous Waste Storage Area section on page two is changed to read:

"The area is about 600 square feet in size and has a storage capacity of about 200-300 drums of hazardous wastes."

- 3) The last sentence of the first paragraph of the Present Hazardous Waste Storage Area section on page two is changed to read:

"The Part A application lists the storage capacity as 200 55-gallon drums of hazardous wastes."

- 4) The second sentence of the first paragraph at the top of page four is changed to read:

"On the south and west sides, the storage area is bordered by a steep, grassy hillside which slopes downward and away from the area."

- 5) The first sentence of the second paragraph of the Closure Performance Standard section on page four is changed to read:

"The hazardous constituents to be considered in the sampling, decontamination, and removal procedures include, but are not limited to, the following:

1) methylene chloride; 2) toluene; 3) methyle ethyl ketone; 4) methyl isobutyl ketone; 5) toluene diisocyanate; 6) acetone; 7) xylene; 8) cadmium; and 9) lead."

- 6) The following paragraph is added to the Closure Performance Standard section on page five:

"If health-based levels are used as the maximum allowable concentrations for the hazardous constituents, Sheller-Globe Corporation will submit proposed levels to EPA for approval within 30 days of receipt of the approved closure plan. Detailed documentation and justification will accompany the proposed health-based levels."

- 7) The following changes are made to the steps listed in the Overview of Closure Steps section on page 5, beginning with step number 5:

5. If soils are contaminated, remove and dispose of soils.

6. Certify closure.

- 8) The number of 55-gallon drums shown in the table on page six for solid hazardous wastes, N.O.S, is changed from 80 to 30.

- 9) The following paragraph is added to the Removal and Disposal of Hazardous Waste Inventory section on page seven following the table of facilities:

"During the closure process no hazardous wastes will be stored in the two areas being closed. Any wastes generated by the facility during closure will be accumulated in an area other than those undergoing closure. Storage of any drum will not exceed 90 days to prevent the creation of any additional

storage area requiring closure. Upon acceptance of the closure certification by EPA, drum storage will resume in the current hazardous waste storage area for periods of less than 90 days in accordance with 40 CFR 262.34."

- 10) The following sentence is added to the end of the first paragraph of the Sampling Plan section at the bottom of page eight:

"In accordance with EPA Region VII policy, Sheller-Globe will notify EPA 30 days in advance as to the date final sampling to demonstrate clean closure will take place so that an EPA inspector can be present to observe the sampling and take sample splits for EPA analysis."

- 11) All references to 6-inch deep soil core samples in paragraph one of the Old Hazardous Waste Storage Area section on page nine are changed to 24-inch deep soil core samples.

- 12) The first sentence in the second paragraph of the Old Hazardous Waste Storage Area section on page nine is changed to read:

"Each soil sample will be divided into two samples: the top sample will be the first 12 inches (0-12") of the core sample, and the bottom sample will be the next 12 inches (12-24") of the core sample. Each soil sample will be placed in a pre-cleaned glass jar, labeled, and stored in an ice cooler kept at about 4 degrees C."

- 13) The following sentences are added to the end of the third paragraph of the Old Hazardous Waste Storage Area section on page nine:

"Sampling will be observed by an EPA inspector at the option of EPA. The inspector may obtain splits of the soil samples at his/her discretion."

- 14) The following sentence is added to the end of the first paragraph at the top of page ten:

"Quality Assurance/Quality Control (QA/QC) procedures described in SW-646 will be adhered to for all sampling activities."

- 15) All references to 6-inch deep soil core samples in the Current Hazardous Waste Storage Area section on page ten are changed to 24-inch deep soil core samples.
- 16) In the first sentence of the Background Samples section on page ten, change "Four 6 inch deep soil core samples...." to "Four 12-inch deep soil core samples ...."
- 17) In the second sentence of the Background Samples section on page ten change "...concentrations of the hazardous constituents of concern." to "...concentrations of cadmium and lead only."
- 18) The following section is added after the Background Samples section at the bottom of page ten:

Equipment Decontamination

All equipment that is used in the decontamination and sampling activities, such as brooms, tools, buckets, sample collection equipment, etc., will be decontaminated by washing with detergent solution followed by a clean water rinse. All cleaning solutions and rinse water will be collected and placed in 55-gallon drums, which will be handled and disposed of as hazardous wastes.

- 19) The first sentence of the Analysis Plan section on page eleven is changed to read:

"All soil core samples (both top and bottom samples) will be analyzed for the nine hazardous constituents of concern, except for the background samples which will be analyzed for cadmium and lead only."

- 20) The Contingency Soil Removal/Disposal Plan section (two paragraphs) on pages eleven and twelve is deleted in its entirety and is replaced by the following:

Soil Removal/Disposal Plan

In the event that the concentration in soil of any of the nine hazardous constituents exceeds the closure performance standard, Sheller-Globe will perform the following activities:

- 1) Sample the soil in all directions around the contaminated area to a depth of 4 feet to determine the horizontal and vertical extent of the contamination. All core samples will be divide into 1-foot increments and be analyzed separately. Analysis activities will be performed as previously described.
- 2) After the extent of contamination has been determined, excavate the contaminated soil with a backhoe and dispose of the contaminated soil as a hazardous waste at one of the facilities previously mentioned. Any asphalt which must be removed will also be disposed of as a hazardous waste.
- 3) Decontaminate the backhoe and any other equipment used in the soil removal process by rinsing with a detergent solution, triple rinsing with water, and collecting all rinsates into 55-gallon drums. Dispose of the drums as hazardous wastes.
- 4) Resample the soil in the excavated area to a depth of one foot and analyze the samples. If contamination is found, repeat the above process of excavating the soil, disposing of the soil as a hazardous waste, and decontaminating the equipment. Continue this process until the soil sample analyses indicate no contamination above the closure performance standard.
- 5) After decontamination of the site is assured, all terrain will be graded back to its original grade and all asphalt removed will be replaced. Uncontaminated equipment will replace soil and asphalt in the excavation area.

Although soil is not expected to be contaminated above the closure performance standard, an allowance has been made in the closure cost estimate for removal and disposal of about 90 cubic yards of soil.. It is assumed that the density of soil is about 1 ton/cubic yard.

- 21) The second paragraph in the Management of Generated Wastes section (In the event..... of the contaminated soil.) on page twelve is deleted.
- 22) On the third line at the top of page thirteen, change Rnadolph to Randolph.
- 23) The following changes are made to the closure schedule table on page thirteen, beginning with step No. 7:
 

7. If soil is contaminated, begin soil removal/disposal activities	110
8. If soil is clean, certify closure	160
9. Certify closure after soil removal/disposal activities	180

Delete the footnote (\*Note: If soil ..... to EPA) at the bottom of page thirteen.
- 24) The horizontal line after the first paragraph on page fourteen is deleted.
- 25) The phrase "registered in the State of Iowa" at the end of the first sentence in the Certification of Closure section on page fourteen is deleted.
- 26) The last sentence of the Financial Assurance and Liability Coverage section (This coverage .... certification of closure) on page fifteen is deleted.
- 27) The word Ammendment is changed to read Amendment on the fifth line on page fifteen.
- 28) The word accordnace is changed to read accordance in the last line on page fifteen.
- 29) The Cost Estimate for Closure table on page sixteen is changed in the Disposal section to read:

f. Miscellaneous Hazardous Waste Solids	<u>11,400</u>
SUBTOTAL:	<u>40,850</u>

Revised: September 27, 1988

SHELLER-GLOBE CORPORATION

Keokuk, Iowa

EPA ID No. IAD005136023

Closure Plan

I. Introduction

This closure plan is being submitted by Sheller-Globe Corporation in accordance with 40 CFR Part 265, Subpart G. This plan describes the steps necessary to close a former hazardous waste container storage area and the current hazardous waste container storage area. The plan has been designed to ensure that the storage areas, when closed, will not pose a threat to human health or environment.

The facility produces extruded and molded rubber weatherstripping and molded polyurethane dashboards for automotive applications. It is located at 3200 Main Street in Keokuk, Iowa, and is surrounded by manufacturing, agricultural and residential areas.

Flammable waste solvents from cleaning and painting operations and non-flammable wastes including chlorinated solvents, isocyanates and other hazardous wastes are placed in 55-gallon drums and stored in the current hazardous waste storage area. This outdoor storage area will be closed in accordance with this plan. Hazardous wastes will then be stored in the current storage area for less than 90 day periods.

## II. Description of Storage Areas

The locations of the two hazardous waste storage areas are shown in the figure on the following page. They are located near the flammable liquid storage and mixing building within a fenced area. Access to the plant is limited to authorized personnel or escorted guests during normal working hours. During off-hours and weekends the facility is locked up and patrolled by security personnel.

### Old Hazardous Waste Storage Area

The old hazardous waste storage area is located in front of the flammable liquid storage and mixing building which is located behind the manufacturing plant. The area has a storage capacity of about 200-300 drums of hazardous wastes. The storage area is a flat asphalt surface bordered by grass on the south and west sides. The use of this site for waste storage was discontinued in November, 1983.

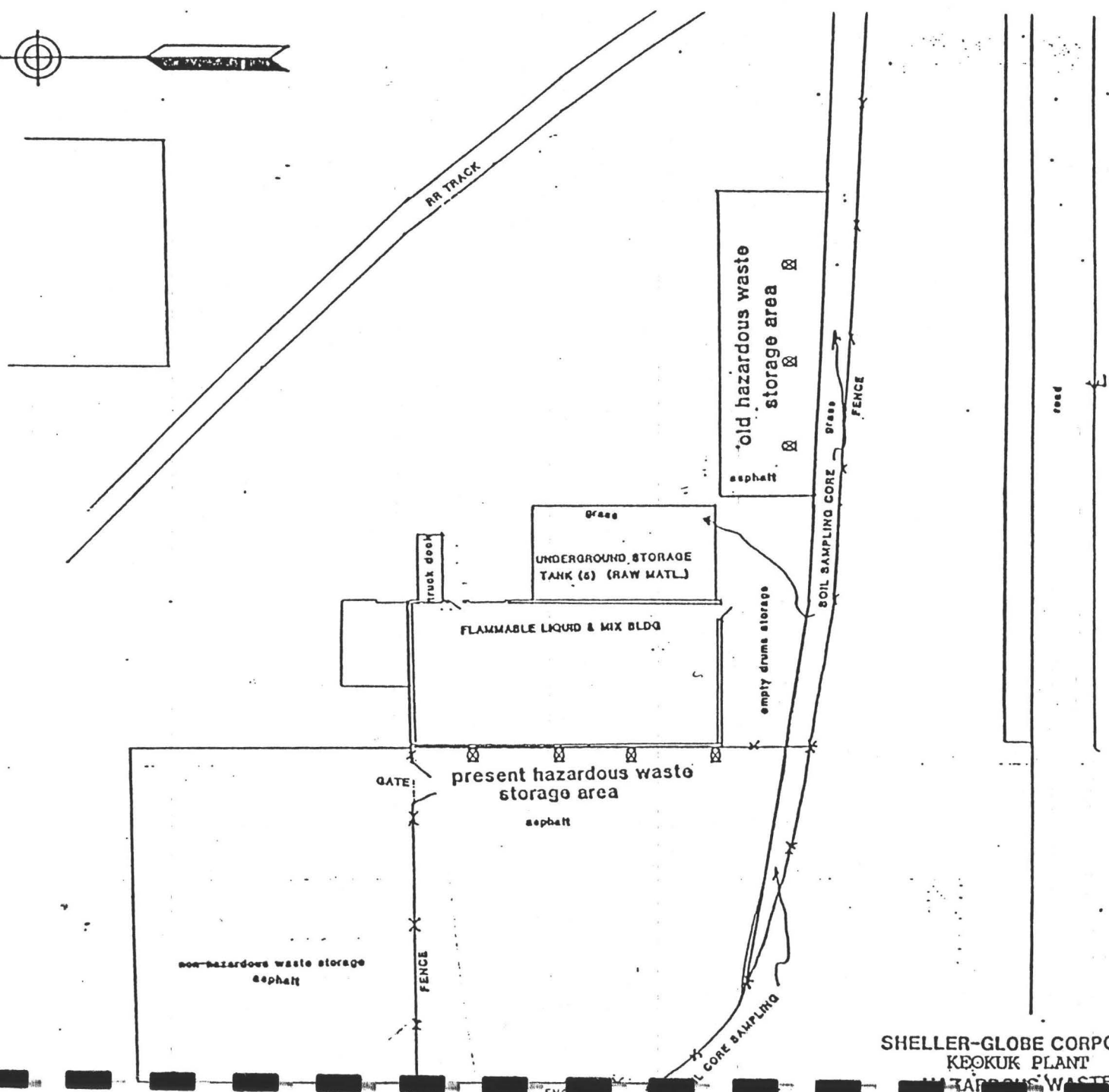
### Present Hazardous Waste Storage Area

The present hazardous waste storage area is behind (west) the flammable liquid storage and mixing building. The storage area is about 2,500 square feet in size, asphalt paved, surrounded by a perimeter fence and located more than 50 feet from the Sheller-Globe facility property boundary. The permitted storage capacity is 200 55-gallon drums of hazardous wastes.





⊗ = Asphalt Sampling



SHELLER-GLOBE CORPORATION  
KEOKUK PLANT  
HAZARDOUS WASTE

## CLOSURE PLAN

Page 4

An asphalt paved non-hazardous waste storage area lies north of the storage area. On the south and west sides, the storage area is bordered by a steep, grassy hillside. The storage area surface slopes downward, away from the building toward the hillside.

### III. Closure Performance Standard

This closure plan is designed to ensure that the closure of the drum storage areas will minimize the need for further maintenance and control. Pursuant to 40 CFR 265.111, closure activities will eliminate, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the atmosphere, ground, or surface waters.

The hazardous constituents to be considered in the sampling, decontamination, and removal procedures are: (1) methylene chloride; (2) toluene; (3) methyl ethyl ketone; (4) methyl isobutyl ketone; (5) toluene diisocyanate; (6) acetone; (7) xylene; (8) cadmium; and (9) lead. Each of these hazardous constituents are or have been stored in the two storage areas.

Sheller-Globe Corporation will remove or decontaminate all wastes and waste residues, contaminated storage system components, contaminated

## CLOSURE PLAN

Page 5

soils and subsoils, and structures contaminated with the above hazardous constituents. Soil will be considered hazardous if: (1) the concentration of any hazardous constituent in a sample exceeds the upper limit of the 95% confidence interval of the background mean value for the particular constituent; or (2) the concentration of any hazardous constituent exceeds EPA approved health-based levels.

### IV. Contents of the Plan

#### Overview of Closure Steps

The following steps will be taken to perform closure of the storage areas:

1. Remove and dispose of the hazardous waste inventory in the current storage area.
2. Decontaminate each of the two storage areas and dispose of generated wastes.
3. Sample soils and analyze samples.
4. Submit analyses of soil samples to EPA for review.
5. If soils are contaminated, submit contingency soil cleanup plan to EPA for approval.
6. Perform sampling, soil excavation and soil disposal in accordance with contingency plan.
7. Certify closure.

## CLOSURE PLAN

Page 6

### Maximum Inventory of Hazardous Wastes

The old hazardous waste storage area discontinued operation in November, 1983 and no longer contains any hazardous wastes. Prior to discontinuing storage in this area, a maximum of about 325 55-gallon drums of hazardous wastes were stored at one time.

The current hazardous waste storage area has a capacity of about 200 55-gallon drums of wastes. The maximum inventory of hazardous wastes in storage at any given time is:

<u>Type of Hazardous Waste</u>	<u>No. of 55-Gallon Drums</u>
Isocyanates	15
Flammable Solvent	70
Chlorinated Solvent	35
Liquid Hazardous Wastes, N.O.S.	20
Solid Hazardous Wastes, N.O.S.	<u>80</u>
Total	170

### Removal and Disposal of Hazardous Waste Inventory

All hazardous wastes in storage in the current storage area shall be removed and disposed of using the following procedure:

- (1) All hazardous waste in storage shall be inventoried and inspected for proper packaging, identification, and labeling. Any hazardous waste not properly packaged or labeled shall be segregated.

- (2) All waste material in the storage area shall be consolidated by placing compatible material in proper drums, i.e., non-halogenated solvent with non-halogenated solvent, etc.
- (3) All waste drums in the storage area shall be marked, labeled, and inventoried in accordance to their content.
- (4) All wastes will be disposed of at one or more of the following facilities:

Peoria Disposal Co.	ID# ILD000805812
Ross Incineration Services, Inc.	ID# OHD048415665
Clayton Chemical Company	ID# ILD066918327
Marine Shale	ID# LAD981057706
Ensco	ID# ARD069748192

Decontamination of Old Storage Area

The old hazardous waste storage area shall be decontaminated using the following procedure:

- (1) Mechanically and/or manually sweep the asphalt surface thoroughly to remove all dust, dirt, and other debris. Place sweepings in a 55-gallon drum.
- (2) Visually inspect the surface for stains. If stains are present, remove the stained surface of the asphalt by mechanically and/or manually scraping or chiseling, and place the scrapings in 55-gallon drums.

- (3) Thoroughly scrub the asphalt surface with a detergent and water solution, collect the solution, and place the solution in 55-gallon drums.
- (4) Rinse the surface twice with water, collect the water, and place the water in 55-gallon drums.

All drummed wastes from the decontamination operation will be handled and disposed of as hazardous wastes. Sampling and analysis of the contents of the drums will not be necessary.

#### Decontamination of the Present Storage Area

The present hazardous waste storage area will be decontaminated using the same four steps for decontaminating the old storage area. All surface wastes, detergent solution, and water rinsates will be collected and placed in 55-gallon drums. All drums will be handled and disposed of as hazardous wastes. Sampling and analysis of the contents of the drums will not be necessary.

#### Sampling Plan

Soil sampling will be conducted in and around the two storage areas and in several areas on Sheller-Globe's property that are unaffected by waste management activities to determine the extent of soil contamination caused by waste management activity and to determine local background levels of the constituents of concern in the wastes.

Old Hazardous Waste Storage Area

Soil samples will be taken adjacent to and beneath the asphalt surface of the storage area as follows: (1) soil core samples 6 inches deep will be taken at 10 foot intervals about one foot from the south edge of the surface; (2) two 6 inch deep core samples will be taken in the grassy area containing the underground product storage tanks; and (3) three soil samples will be taken from beneath the asphalt. Each soil sample beneath the asphalt will be taken by removing a core through the asphalt down to a depth of 6 inches in the soil and retaining the soil sample only. The asphalt will not be retained for analysis.

Each soil sample will be placed in a pre-cleaned glass jar, labeled, and at 4 degrees C. The soil sampling devices will be cleaned after taking each sample to prevent cross-contamination. Cleaning shall consist of removing soil particles with a wire brush, washing in a detergent solution, triple rinsing with distilled water, and air drying prior to taking the next sample.

All sampling will be conducted under the observation of an independent, registered professional engineer. A field notebook will be maintained describing sampling location, procedures, conditions at time of sampling, and any deviations from the above sampling descriptions.

## CLOSURE PLAN

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All samples will be transported to the analytical laboratory in an ice cooler maintained at about 4 degrees C. Sample chain-of-custody will be documented in accordance with Test Methods for Evaluating Solid Waste: Physical Chemical Methods (SW-846), Third Edition, November, 1986.

### Current Hazardous Waste Storage Area

Soil samples will be taken adjacent to and beneath the asphalt surface of the storage area as follows: (1) soil core samples 6 inches deep will be taken at 10 foot intervals about one foot from the west and south edges of the surface; and (2) four 6 inch deep soil samples will be taken from beneath the asphalt at 10 foot intervals about 4 feet from the building wall. The same procedures that will be used for sampling the old storage area described above will also be used for this storage area.

### Background Samples

Four 6 inch deep soil core samples will be taken at areas on the Sheller-Globe property which are unaffected by waste management activity. These samples will be analyzed to determine the background concentrations of the hazardous constituents of concern. Sampling and handling procedures will be the same as those for the storage area sampling. Locations where the background samples are taken will be documented.



Analysis Plan

All soil samples will be analyzed for the nine hazardous constituents of concern. Analyses will be performed in accordance with methods described in SW-846 (third edition) and will be reported to EPA. The SW-846 analytical methods which will be used are Method 8240 for volatile compounds (acetone, toluene, xylene, methylene chloride, MEK, and MIBK); Method 8250 for semi-volatile compounds (toluene diisocyanate); Method 7130 or 7131 for cadmium; and Method 7420 or 7421 for lead. Quality Assurance/Quality Control procedures (QA/QC) described in SW-846 will be followed and all QA/QC data will be made available to EPA upon request.

Contingency Soil Removal/Disposal Plan

In the event that the concentration in soil of any of the nine hazardous constituents exceeds the closure performance standard, Sheller-Globe Corporation will submit a removal/disposal plan to EPA. The plan will describe the sampling and analysis methods that will be used to determine the vertical and horizontal extent of soil contamination; the methods to be used to remove and dispose of the contaminated soil; and the method to be used to decontaminate the removal equipment.

Although soil is not expected to be contaminated above the closure performance standard, an allowance has been made in the closure cost

## CLOSURE PLAN

Page 12

estimate for removal and disposal of about 90 cubic yards. It is assumed that the density of soil is about 1 ton/cubic yard.

### Management of Generated Wastes

The wastes generated during decontamination of the storage areas will include: (1) detergent and water scrubbing solutions; (2) water rinsates; and (3) asphalt scraped or chiseled from the storage area surfaces (if necessary). These wastes will be placed in 55-gallon drums, will be handled as hazardous wastes, and will be disposed of at one or more of the facilities listed previously for disposal of the hazardous waste inventory.

In the event that soil in the storage areas contains hazardous constituent concentrations above the clean closure levels specified in the closure performance standard, the contingency soil removal/disposal plan will identify the facility which will be used to dispose of the contaminated soil.

### Equipment and Material Available for Closure

The equipment and material available for closure activities includes, but is not limited to:

- Fork Trucks - 2
- Empty 55-gallon drums - 100
- Personnel safety equipment such as rubber gloves, boots, head protection, respirators, solvent resistant coveralls, etc.
- Pumps - solvent resistant
- Rinsing solvent - acetone, 500 gallons or isopropyl alcohol
- Absorbent material

CLOSURE PLAN  
Page 13

Hazardous waste labels  
Personnel - to implement closure plan  
Laboratory support - Rnadolph & Associates, Peoria, IL  
Soil removal equipment, backhoe, etc. - Rose Brothers, Keokuk,  
IA  
Hazardous waste storage containers - Peoria Disposal Co.,  
Peoria, IL

Closure Schedule

Projected Completion

Activity

- |   |          |
|---|----------|
| 1. Closure plan approval.   | Day 1    |
| 2. Remove and dispose of hazardous waste inventory.                           | Day 20   |
| 3. Visual inspection of storage areas and surface scraping/chiseling.         | Day 30   |
| 4. Decontamination of storage area surfaces and disposal of wastes generated. | Day 40   |
| 5. Soil sampling and submission of samples to lab for analysis.               | Day 55   |
| 6. Receive analytical results from lab and submit to EPA.                     | Day 100  |
| 7. Review analytical results to determine if soil is contaminated.            | Day 120  |
| 8. If soil is not contaminated, send certification of closure to EPA.         | Day 180* |

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\*NOTE: If soil is contaminated, send contingency plan for sampling and analysis of soil and soil removal and disposal procedures to EPA.

In the event closure cannot be completed within the schedule presented due to weather conditions, prolonged sample analysis, or other unforeseen delays, then an extension will be requested from EPA pursuant to 40 CFR 265.113(b).

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V. Certification of Closure

Closure activities will be conducted under the observation of a qualified, independent professional engineer registered in the State of Iowa. Within 60 days after completion of closure a certification that the drum storage areas have been closed in accordance with the approved closure plan will be submitted to EPA by registered mail. The certification will be signed by an appropriate representative of Sheller-Globe Corporation and the independent professional engineer. Documentation supporting the engineer's certification will be furnished to EPA upon request.

VI. Closure Cost Estimate

The estimated cost for completing closure in accordance with the closure plan is shown in the table on the following page. The total estimated cost of \$93,500 is given in current 1988 dollars.

VII. Financial Assurance and Liability Coverage

Documentation of financial assurance for closure of the storage areas and liability coverage in accordance with 40 CFR Part 265, Sub-

CLOSURE PLAN  
Page 15

part H, has been provided to EPA under separate cover. This coverage will be maintained until EPA relieves Sheller-Globe Corporation of its financial assurance and liability coverage requirements subsequent to acceptance of the certification of closure.

VIII. Amendment of Closure Plan

Should any significant revisions to the closure plan become necessary, it shall be amended in accordance with 40 CFR 256.112(c).

Cost Estimate for Closure

Labor\*

a.	Equipment, decontamination (40 hr x \$25/hr)	\$ 1,000
b.	Consolidation and identification of hazardous waste drums (80 hr x \$25/hr)	2,000
c.	Storage area decontamination (80 hr x \$50/hr)	4,000
d.	Sampling and loading drums (40 hr x \$25/hr)	1,000
		<u>\$8,000</u>

Equipment and Outside Services

a.	Soil core sampling (15 samples x \$50/sample)	\$ 750
b.	Soil core analysis (15 samples x \$500/sample)	7,500
c.	Laboratory testing (40 samples x \$100/sample)	4,000
d.	Expendable - gloves, boots, coveralls, drums, absorbent, etc.	10,000
e.	Backhoe (if required) (10 hr x \$60/hr)	600
f.	Washing solvent (10 drums x \$140/drum)	1,400
g.	Drum transportation (3 truckloads x \$700/trip)	2,100
h.	Soil transportation (3 truckloads x \$700/trip)	2,100
		<u>\$28,450</u>

Disposal

a.	Waste flammable liquids (70 drums x \$120/drum)	8,400
b.	Waste chlorinated solvent (35 drums x \$200/drum)	7,000
c.	Waste isocyanate (15 drums x \$200/drum)	3,000
d.	Miscellaneous hazardous waste (20 drums x \$170/drum)	3,400
e.	Contaminated soils (if required) (90 yd x \$85/yd)	7,650
f.	Miscellaneous hazardous waste soils	

Certification of Closure

a.	Cost of professional engineer and certification (10 day x \$400/day)	<u>4,000</u>
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SUBTOTAL COST \$81,300

Contingency for additional sampling labor, disposal, equipment, etc.

15% of Subtotal Cost \$12,200

TOTAL ESTIMATED CLOSURE COST (1988) - \$93,500

\*Labor cost reflects the use of outside contractors. Normally we would use our own employees for closure.

ATTACHMENT C

PUBLIC NOTICE

PUBLIC NOTICE

THE U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA), 726 MINNESOTA AVENUE, KANSAS CITY, KANSAS 66101, IS PROVIDING PUBLIC NOTICE OF THE TENTATIVE DECISION TO APPROVE THE CLOSURE PLAN FOR TWO HAZARDOUS WASTE STORAGE AREAS AT SHELLER-GLOBE CORPORATION, KEOKUK, IOWA.

The EPA has reviewed the closure plan provided by Sheller-Globe Corporation. It has been tentatively determined that the plan is approvable with modifications.

A copy of the public record which includes the closure plan and other information submitted by Sheller-Globe, is available for public review at the Region VII Library at the address listed above from 7:30 a.m. to 4:30 p.m., weekdays. This information is also available at the Keokuk Public Library at 210 North 5th Street, Keokuk, Iowa from 9:30 a.m. to 9:00 p.m. Monday through Thursday, and 9:30 a.m. to 6:00 p.m. Friday and Saturday; the Iowa Department of Natural Resources, Wallace State Building, Air Quality and Solid Waste Protection Bureau, 900 East Grand, Des Moines, Iowa from 8:00 a.m. to 4:30 p.m. weekdays and the Iowa Department of Natural Resources, Region VI Office, 1004 West Madison, Washington, Iowa from 8:00 a.m. to 4:30 p.m. weekdays. The administrative record will be available from November 16, 1988 until December 15, 1988.



Comments or requests for additional information should be directed in writing to Gary Kelso, RCRA Branch, Iowa Section, US EPA Region VII, at the address listed above or by telephone at (913)236-2887. Comments should be submitted prior to December 15, 1988.

A public hearing has not been scheduled by the EPA; however, if requests are received which indicate a significant degree of public interest in this closure plan, a public hearing will be scheduled. Requests for a public hearing shall be in writing to the EPA at the address listed for submittal of comments and shall state the nature of issues proposed to be raised at the hearing. Such requests must be submitted prior to December 15, 1988.

After consideration of all comments received and of the requirements of RCRA, the EPA Regional Administrator will make a final decision regarding the closure plan. If the decision is made to approve the closure plan in a form which is substantially unchanged from the plan made available for public comment as announced by this notice, the EPA Regional Administrator will notify all persons submitting comments or requesting notice of final decision. If the closure plan is substantially changed, the EPA Regional Administrator will issue a public notice indicating the revisions.

ATTACHMENT D

LETTER OF FORMAL APPROVAL OF CLOSURE PLAN



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
726 MINNESOTA AVENUE  
KANSAS CITY, KANSAS 66101

DEC 29 1988

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Mr. A. C. Edgar  
Environmental Service Manager  
Sheller-Globe Corporation  
3200 Main Street  
P.O. Box 727  
Keokuk, Iowa 52632

Re: Final Approval of Closure Plan  
Sheller-Globe Corporation  
EPA ID NO. IAD005136023

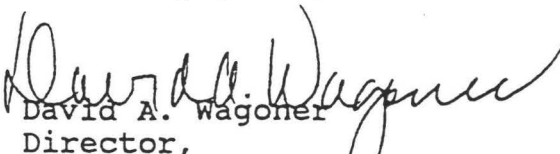
Dear Mr. Edgar:

The Closure Plan (revised September 27, 1988) for Sheller-Globe Corporation, Keokuk, Iowa, with modifications entitled "Sheller-Globe Corporation - Closure Plan Amendments (October, 1988)" was placed on public notice from November 16, 1988 to December 15, 1988. No comments on the closure plan or its modifications were received from the public by this agency.

Final approval of the closure plan with modifications is hereby granted. In accordance with 40 Code of Federal Regulations (CFR) Part 265 Subpart G and the provisions of the approved closure plan, all specified closure activities must be completed within 180 days after this approval, unless an extension is authorized by this Agency in accordance with 40 CFR 265.113(b). A certification of closure must be submitted to this Agency within 60 days of closure completion. In addition, compliance with applicable financial requirements per Part 265 Subpart H must be maintained until after the EPA has released the facility from the financial assurance for closure as per 40 CFR 265.143(h).

During closure implementation, it is requested that Mr. Gary Kelso of my staff be kept informed of any significant issues or events that may arise. Mr. Kelso can be reached at (913) 236-2887.

Sincerely yours,

  
David A. Wagoner  
Director,  
Waste Management Division

cc: Pete Hamlin

ATTACHMENT E

CLOSURE FIELD INVESTIGATION SAMPLING  
AND SOIL REMOVAL REPORT

## 1. Chronological Summary of Closure

Closure of the hazardous waste storage facility was performed according to the following schedule:

Closure Plan Submittal	October 16, 1986
Closure Plan Final Approval	January 4, 1989
Soil Sampling	April 11, 1989
	April 12, 1989
	April 13, 1989
Complete Pre-Closure Generated Waste Disposal	May 15, 1989
Surface Decontamination	June 7, 1989
Soil Removal and Replacement	June 29, 1989
Submit Closure Documentation Report	August 18, 1989
Complete Closure Activities; Generated Waste Disposal	September 22, 1989
USEPA Letter of Deficiency	January 28, 1991
Re-submit Closure Documentation Report	March 4, 1991

## 2. Waste Removal Prior to Closure

All hazardous wastes generated prior to implementation of the approved Closure Plant dated September 27, 1988 were removed and disposed of in accordance with federal regulations. All hazardous wastes generated by plant activities were temporarily stored in a designated area immediately adjacent to the current hazardous waste storage area. The following table identifies the wastes and manifests used for disposal prior to the initiation of closure activities.

<u>Manifest No.</u>	<u>Date</u>	<u>Quantity</u>	<u>Waste No.</u>	<u>*Receiving Facility</u>
3011142	4/10/89	1	F002	CCC
905634	5/4/89	20	D001	MSP
		5	F002	MSP
3011143	5/4/89	9	F003	CCC
		5	D001	CCC
		2	F002	CCC
		8	F005	CCC
3011144	5/15/89	5	D002	CC

\*MSP - Marine Shale Processors, Inc.  
CCC - Clayton Chemical Company  
CC - Chem-Clear

Copies of the manifests are included as Appendix A. Hazardous wastes currently generated at the Sheller-Globe facility have been and are accumulated and disposed of within 90 days of generation. The facility does not intend to operate a hazardous waste storage facility, but plans on continuing operations as a generator of hazardous waste with accumulations of less than 90 days.

### 3. Soil Sampling and Analyses

Sampling of the fill materials surrounding and underlying the Hazardous Waste Storage Areas was attempted on April 11 and 12, 1989 using a 4" diameter hand operated stainless steel auger. Site maps showing the approximate sampling locations are included with this report as Appendix B. The fill materials consisted generally of sand, gravel, clay, and brick, metal and concrete fragments. These materials proved to be difficult to impossible to penetrate with the hand auger. There were, however, several sampling locations under which the fill materials could be hand augured. These included sample locations 1-19A and 12, 13, 15 and 16 A + B, and all background samples. Consequently these locations were sampled on April 11 and 12 via hand auguring. Deviation from closure plan soil sampling protocol was necessary after discovering another layer of asphalt under the old hazardous waste storage area which extended beyond the south edge of the surface level asphalt at a depth of approximately one foot under soil. After consultation with Gary Kelso, it was agreed to take the top one foot sample one foot off of the edge of the surface down gradient from the old hazardous waste storage area. See Appendix A samples 1 through 9. All other sample locations were taken in accordance with sampling plan protocol. Two ounces of fill material were collected from each sample interval by auguring through the sample interval, emptying the auger contents onto a clean sheet of aluminum foil, blending the sample by hand, the selecting 2 ounces of material representative of the sample interval. All samples thus collected were placed in precleaned jars, labeled, and stored on ice at approximately 4°C. All sampling equipment was decontaminated between sample intervals by washing in a detergent solution and triple rinsing in distilled water. All wash and rinse waters were collected, labeled, and held for disposal as a hazardous waste. All the samples thus collected were hand delivered to the laboratory facilities at Randolph & Associates, Inc. the evening of April 12 by the technician who collected the samples. Discrete background samples were collected in an undeveloped area west of the storage areas and southeast of the cooling lake, The four samples were collected in a box pattern of 10 foot spacing, in the 6 to 12 inch interval, using the SW-846 protocol described above. The location of the background samples is shown on the attached site map.

The remaining fill material samples were collected April 13, 1989 by hammering a 2-inch OD split spoon sampler through the prescribed sample interval using an 8 ton truck mounted drilling rig. As with the auguring methodology, two ounces of fill material were collected from each sample interval, placed in precleaned glass jars, labeled, and stored on ice at approximately 4°C. All sampling equipment was decontaminated between sample intervals by washing in a detergent solution and triple rinsing in distilled water. All wash and rinse waters were collected, labelled and held for disposal as a hazardous waste. All the samples were then hand delivered to the laboratory by the sampling technician the evening of April 13, 1989.

The soil samples and the wash water sample were analyzed for the volatile organic compounds (VOC) xylene, acetone, methyl isobutyl ketone, methyl ethyl ketone, toluene and methylene chloride using a flame ionization detector (FID) using Standard Test Method 8015. The samples were analyzed for cadmium and lead using an inductively coupled plasma spectrometer using Standard Test Method 6010. The related laboratory reports are included with this report as Appendix H.

#### 4. Decontamination of Hazardous Waste Storage Area Surfaces

On June 7, 1989, the asphalt surfaces of the old and current hazardous waste storage areas were decontaminated by power washing, washing with an industrial detergent and triple rinsing with clean water.

A cleanup crew employed by Keokuk Contractors, Inc., began the decontamination process by power washing the asphalt surfaces of the storage areas with city tap water under 10,000 psi pressure. All resultant wash waters were recovered via wet vacs and stored in DOT approved 50 gallon drums in preparation for disposal.

Following power washing, the surfaces were scrubbed with an industrial detergent using a high pressure liquid floor scrubber owned by Sheller-Globe and operated by Sheller-Globe personnel. This self-contained unit both washed and simultaneously recovered its wash water in a continuous cycle. The resultant wash waters thus collected in the scrubber were drained directly into DOT approved 50 gallon drums in preparation for disposal.

Following the scrubbing of the asphalt surfaces with the high pressure floor scrubber, the surfaces were triple rinsed with city water using the same scrubber. As with the detergent washing, all resulting rinse waters were placed into DOT approved 50 gallon drums in preparation for disposal.

Photo documentation of the surface decontamination of the hazardous waste storage area surfaces is included in this report as Appendix C.

#### 5. Soil Removal

In response to the lead levels discovered in the 0"-12" soil intervals at sampling points 18 and 20 (See Appendix B), Sheller-Globe Corporation elected to excavate, and dispose of soils at these two locations. Soil excavation and containerization was completed on June 29, 1989.

Soils at the two sampling points were excavated to a depth of 14 inches in a radius of 6 feet around the sampling points. Soil excavation was conducted to the edge of the asphalt surface of the hazardous waste storage facility. All excavated soils were placed in plastic lined vinyl bags with a capacity of 1 cubic yard in preparation for disposal.

Following soil excavation, two composite soil samples of the 0-12 inch soil interval were collected from each excavation approximately three feet apart in the down slope direction from the two sampling points. Each composite sample was analyzed for the total lead. Related laboratory reports along with photo documentation of soil excavation and containerization is included in this report as Appendix D.

After analytical results indicated the areas to be below clean-up standards, approximately 4 cubic yards of clean soil from a remote area north of the plant was used to replace the excavated soil. Gravel was used to cover the areas.

## 6. Soil and Decontamination Waste Removal

All wastes generated as a result of closure activities were or will be removed and disposed of in accordance with federal regulations. All wastes generated by closure activities were/are temporarily stored in a designated area immediately adjacent to the current hazardous waste storage area.

The following table identifies the wastes and manifests used for disposal of the wastes.

<u>Waste</u>	<u>Manifest No.</u>	<u>Date</u>	<u>Quantity</u>	<u>Method</u>
Decontamination Wash Water	3011148	8/10/89	9 drums	Wastewater Treatment
Excavation Soil	3011151	10/23/89	4 yd <sup>3</sup>	RCRA Landfill

A copy of the wash water manifest is included as Appendix E.

Following the completion of the waste stream permitting process, the excavations oils were disposed of in a RCRA Landfill (Peoria Disposal Company) on 10/23/89.

A copy of the manifest for the excavated soil is included in Appendix E.



APPENDIX A

PRE-CLOSURE GENERATED WASTE DISPOSAL  
MANIFESTS

GENERATOR NOTIFICATION  
TO CLAYTON CHEMICAL CO.  
REGARDING SHIPMENT OF WASTES  
RESTRICTED FROM LAND DISPOSAL  
UNDER 40 CFR 268.7(a)(1)

This notification is submitted by Sheller-Globe Corporation  
to Clayton Chemical in accordance with the Land Disposal Restrictions,  
Final Rule (effective Nov. 8, 1986) under 40 CFR 268.7 (a)(1). According  
to this final rule, generators of EPA Hazardous Waste Numbers F001 to  
F005 must provide the following information with each shipment delivered  
to CLAYTON CHEMICAL:

1. EPA Hazardous Waste Number(s): F002, F003, F005
2. Manifest number associated with this shipment: IL 3011143
3. Waste analysis data (attach if different from Clayton's qualification analysis).

CORRESPONDING TREATMENT STANDARD

Instructions: For each solvent waste constituent present in this waste  
or its extract, check the appropriate box in front of  
the treatment standard(s) which apply or see item #4 below.

Solvent Constituent	(mg/liter)	
		All other spent solvent wastes.
Acetone	<input checked="" type="checkbox"/>	0.59
n-Butyl alcohol	<input type="checkbox"/>	5.0
Carbon disulfide	<input type="checkbox"/>	4.81
Carbon tetrachloride	<input type="checkbox"/>	0.96
Chlorobenzene	<input type="checkbox"/>	0.05
Cresols and cresylic acid	<input type="checkbox"/>	0.75
Cyclohexanone	<input type="checkbox"/>	0.75
1,2-Dichlorobenzene	<input type="checkbox"/>	0.125
Ethyl acetate	<input type="checkbox"/>	0.75
Ethyl benzene	<input type="checkbox"/>	0.053
Ethyl ether	<input type="checkbox"/>	0.75
Isobutanol	<input type="checkbox"/>	5.0
Methanol	<input type="checkbox"/>	0.75
Methylene chloride	<input checked="" type="checkbox"/>	0.96
Methylene chloride (from the pharmaceutical industry)	<input type="checkbox"/>	0.96
Methyl ethyl ketone	<input type="checkbox"/>	0.75
Methyl isobutyl ketone	<input type="checkbox"/>	0.33
Nitrobenzene	<input type="checkbox"/>	0.125
Pyridine	<input type="checkbox"/>	0.33
Tetrachloroethylene	<input type="checkbox"/>	0.05
Toluene	<input checked="" type="checkbox"/>	0.33
1,1,1-Trichloroethane	<input type="checkbox"/>	0.41
1,1,2-Trichloroethane	<input type="checkbox"/>	0.96
Trichloroethylene	<input type="checkbox"/>	0.091
Trichlorofluoromethane	<input type="checkbox"/>	0.96
Xylene	<input type="checkbox"/>	0.15

4. ☒ This waste is restricted from land disposal based on knowledge of the waste, (check if applicable).

A.C. Edgar

A.C. Edgar

Environmental Services Mgr.

05-04-89

STATE OF LOUISIANA  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
HAZARDOUS WASTE DIVISION  
P.O. BOX 44307  
BOULDER, LOUISIANA 70804

RECYCLE / REUSE

MANIFEST NO 905634

(Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-91

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No. TAD00513602389011	Manifest Document No. 1	2. Page 1 of 2	Information in the shaded areas is not required by Federal law.
Generator's Name and Mailing Address Shelker-Globe Corporation 3200 Main St. Keokuk, IA 52632					
Generator's Phone (319) 524-4566					
Transporter 1 Company Name Miller Truck Company		6. US EPA ID Number ILD006493191			
Transporter 2 Company Name		8. US EPA ID Number			
Designated Facility Name and Site Address NE SHALE PROCESSORS, INC. WAY 90 EAST ORGAN CITY, LOUISIANA 70380		10. US EPA ID Number LAD981057706			

Waste Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers		13. Total Quantity	14. Unit Wt/Vol	Waste No.
	No.	Type			
Hazardous Waste Liquid, N.O.S., NA 9199, (F002)	010	AE	DM 0101220	1	F002
Flammable Solid, N.O.S., UN1325, (D001)	020	AE	DM 0111010	1	D001
Waste Methylene Chloride Mixture, UN1593, (F002)	001	AE	DM 0001515	1	F002

Materials Listed Above	RECYCLE / REUSE	Special Handling Codes for Wastes Listed Above
------------------------	-----------------	--

Special Handling Instructions and Additional Information

UNABLE TO DELIVER, RETURN TO GENERATOR

GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and selected the best waste management method that is available to me and that I can afford.

Generator's Name A.C. Edgar	Signature A.C. Edgar	Month Day Year 10/5/89
Transporter 1 Acknowledgement of Receipt of Materials		
Generator's Name Gene Brough	Signature Gene Brough	Month Day Year 10/5/89
Transporter 2 Acknowledgement of Receipt of Materials		
Generator's Name	Signature	Month Day Year

Discrepancy Indication Space

Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.		
Generator's Name Ellen Reid	Signature Ellen Reid	Month Day Year 05/08/89

MARINE SHALE PROCESSORS, INC.  
LAND DISPOSAL RESTRICTIONS INFORMATION

Owner Name: Seller-Globe Corp. Customer EPA ID Number: IAD005/36023  
Address: 3200 Main MCDS Document Number: SGC0002/SGC8902055  
Keweenaw, IA 52632

Manifest number(s): 905634, we are shipping to you, for  
in the MSP recycling process, recyclable materials stream(s) classified as EPA Hazardous Waste Number(s):  
F002

The EPA land disposal restriction regulations (40 CFR 268)

☒ APPLY to these materials, under the following category or categories:

☒ Solvent/dioxin (See Attach. 1)

☐ California list, specifically (See Attach. 2): \_\_\_\_\_

☐ "First Third" list (See Attach. 3)

☐ DO NOT apply to this stream. (Skip following questions. Sign on bottom of page.)

The stream cannot be landfilled because (check one):

- ☐ 1. Incineration or recycling is the required technology to be used (See 40 CFR 268.42.), or
- ☐ 2. PCB's (ARE NOT acceptable and NOT approved for shipment to MSP), or
- ☐ 3. After November 8, 1988 --- wastes, except wastewaters, containing Halogenated Organic Compounds in total concentration of 1000 mg/kg or 1000 mg/l, or more.), or
- ☒ 4. The stream is an F001-F005 solvent, or a "First Third" waste containing organics or other non-metals (Attach. 3, Item 1). The following constituents identified in Table CCW or Table CCWE (See Attach. 4) of 40 CFR 268, must be treated to at least the level specified below (use reverse side for additional constituents):

Constituent	Treatment Standard	Per Table	
		CCW	CCWE
<u>Methylene Chloride</u>	<u>96 mg/l</u>	_____	<input checked="" type="checkbox"/>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

- ☐ 5. The stream is a liquid that is primarily water and contains HOC's in total concentration greater than or equal to 1,000 mg/l and less than 10,000 mg/l HOC's, or
- ☐ 6. The stream is a "Soft Hammer" material containing organics or other non-metals (Attach. 3, Item 5).

I hereby certify that the information provided on this form is complete and accurate to the best of my knowledge and ability to determine.

Authorized Representative Signature: A.C. Edger

Print or Type Name: A.C. Edger

Company: Environmental Services, Inc. Date: 5/4/89

EPA TYPE

(Form designed for use on date (12-pitch) typewriter.)

EPA Form 8700-22 (Rev. 9-86)

Form Approved OMB No. 2050-0039 Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No	Manifest Document No	2. Page of 2	Information in the shaded areas is not required by Federal law, but is required by Illinois law	
Generator's Name and Mailing Address		Location If Different		A. Illinois Manifest Document Number		
Sheller-Globe Corporation 3200 Main St. Kosciusko, IA. 52632				IL 3011143		
Generator's Phone (391) 524-7560		Att: A.C. Edgar		B. Illinois Generator's ID 9191110001		
Transporter 1 Company Name		6 US EPA ID Number		C. Illinois Transporter's ID 0025		
Schiber Truck Company		ILD 006493191		D. (618) 254-2514 Transporter's Phone		
Transporter 2 Company Name		8 US EPA ID Number		E. Illinois Transporter's ID		
Designated Facility Name and Site Address		10 US EPA ID Number		F. ( ) Transporter's Phone		
Dayton Chemical Company #1 Mobile Avenue Gauget, IL. 62201		ILD 006918327		G. Illinois Facility's ID 11631210004		
DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers		13. Total Quantity	14. Unit Mt/Vol	I. Waste No.
-Waste Flammable Liquid, N.O.S., UN1993, (F003)		009 DM		0049.5	1	XX F003
-Waste Flammable Liquid, N.O.S., UN1993, (D001)		005 DM		00275	1	XX D001
-Waste Methylene Chloride Mixture, UN1593, (F002)		002 DM		0011.0	1	XX F002
-Waste Toluene Mixture, UN1294, (F005)		008 DM		00385	1	XX F005
Additional Descriptions for Materials Listed Above		K. Handling Codes for Wastes Listed Above In Item # 14		1 = Gallons 2 = Cubic Yards		
a.) Waste Paint (Toluene, Acetone)						
b.) Flocking Adhesive (MIBK, Toluene)						
c.) Chalking Glue						
5. Special Handling Instructions and Additional Information						
If wastes listed in item 11 are undeliverable for any reason - Return to generator. Chem-Trec (800) 434-9300						
GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations						
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name		Signature		Date		
A.C. Edgar		A.C. Edgar		Month Day Year 050489		
Transporter 1 Acknowledgement of Receipt of Materials		Signature		Date		
Gene Bough		Gene Bough		Month Day Year 050489		
Transporter 2 Acknowledgement of Receipt of Materials		Signature		Date		
Printed/Typed Name		Signature		Month Day Year		
Discrepancy Indication Space						
Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.				Date		
Printed/Typed Name		Signature		Month Day Year		
Sandy Helm		Sandy Helm		050589		

Generator is authorized to require payment to Illinois Revenue Authority under 115 ILCS 5/10-1. Failure to provide the information may result in a civil penalty against the generator of not to exceed \$25,000 per day of violation. Fabrication of the information may result in a fine up to \$50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Illinois Department of Transportation.

COPY 1. TSD MAIL TO GENERATOR



SE TYPE

**UNIFORM HAZARDOUS  
WASTE MANIFEST**

1. Generator's US EPA ID No.

Manifest  
Document No.

2. Page 1

Information in the shaded areas is not  
required by Federal law, but is required  
by Illinois law.

Generator's Name and Mailing Address

Location If Different:

Skelton-Globe Corp

3200 Main St.

Peoria, IL 61602

Generator's Phone (319) 524-4560

6

US EPA ID Number

Transporter 1 Company Name

Chiber Truck Company

8

US EPA ID Number

Transporter 2 Company Name

Designated Facility Name and Site Address

10

US EPA ID Number

Chem-Gear  
11800 S. Stony Island Ave.  
Chicago, IL 60617

ILD 000608471

A. Illinois Manifest Document Number

IL 3011144

MANIFEST  
FEE EXEMPTB. Illinois  
Generator's  
ID

9191110091

C. Illinois Transporter's ID

10025

D. (68) 254-2514 Transporter's Phone

E. Illinois Transporter's ID

F. ( )

Transporter's Phone

G. Illinois  
Facility's  
ID

0316000051

H. Facility's Phone

(312) 646-6202

US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)

12. Containers

No.

Type

13.  
Total  
Quantity14.  
Unit  
Wt/VolI.  
Waste No.

EPA HW Number

Authorization Number

EPA HW Number

Authorization Number

EPA HW Number

Authorization Number

EPA HW Number

Authorization Number

EPA HW Number

Authorization Number

EPA HW Number

Authorization Number

EPA HW Number

Authorization Number

Additional Descriptions for Materials Listed Above

4a.) CH #4540 - (D006)

K. Handling Codes for Wastes Listed Above  
In Item # 14

1 = Gallons

2 = Cubic Yards

5. Special Handling Instructions and Additional Information

IF waste listed in item 11 is undeliverable, return to generator

GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by  
proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway  
according to applicable international and national government regulations.If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be  
economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and  
future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select  
the best waste management method that is available to me and that I can afford.

Printed/Typed Name

A.C. Edgar

Signature

A.C. Edgar

Date

05/5/89

Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

Jack Baldrige

Signature

Jack Baldrige

Date

05/5/89

Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Date

9. Discrepancy Indication Space

10. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Date

Printed/Typed Name

Catherine Ortiz

Signature

Catherine Ortiz

Date

05/6/89

Agency is authorized to require, pursuant to Illinois Revised Statutes Chapter 113, Section 2-2, that this information be submitted to the Agency. Failure to provide the information may result in a civil penalty against the owner  
operator of not to exceed \$25,000 per day of violation. Fabrication of this information may result in a civil penalty against the owner operator of not to exceed \$50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Environmental Management

TYPE

(Form designed for use on electric (12-pitch) typewriter)

EPA Form 8700-22 (Rev. 9-86)

Form Approved OMB No. 2050-0039 Expires 9-30-91

This page of a split can the Illinois Office of Emergency Response at 217/782-3637 and the National Response Center at 800/424-6042 or 217/782-3637

UNIFORM HAZARDOUS  
WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest  
Document No.

2. Page 1

Information in the shaded areas is not  
required by Federal law, but is required  
by Illinois law.

Generator's Name and Mailing Address

Location If Different

Shelton-Globe Corporation  
3200 Main St.  
Kokomo, IA 52432

Generator's Phone (319) 524-4560

Attn: A.C. Edgar

Transporter 1 Company Name

6

US EPA ID Number

Shiber Truck Company

ILD006473191

Transporter 2 Company Name

8

US EPA ID Number

Designated Facility Name and Site Address

10

US EPA ID Number

Shelton Chemical Company  
Mobile Avenue  
Duquoin, IL 62201

ILD066918327

A. Illinois Manifest Document Number

IL 3011142

MANIFEST  
FEE EXEMPTB. Illinois  
Generator's  
ID

9191110001

C. Illinois Transporter's ID

10025

D. (618) 254-2514 Transporter's Phone

E. Illinois Transporter's ID

F. ( )

Transporter's Phone

G. Illinois  
Facility's  
ID

116311210004

H. Facility's Phone

(618) 271-0467

DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)

12. Containers

No

Type

13.  
Total  
Quantity14.  
Unit  
Wt/VolI.  
Waste No.

Waste Methylene Chloride Mixture, UN1593, (F002001) + T003301

EPA HW Number

XX F002

Authorization Number

0000009

EPA HW Number

XX

Authorization Number

EPA HW Number

XX

Authorization Number

EPA HW Number

XX

Authorization Number

Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above  
In Item # 14

1 = Gallons

2 = Cubic Yards

Special Handling Instructions and Additional Information

A waste listed in item 11 is unbelievable for any reason, return to  
generator  
Chen Tree (800) 434-9300GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by  
proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway  
according to applicable international and national government regulations.I am a large quantity generator. I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be  
economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and  
future threat to human health and the environment. OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select  
the best waste management method that is available to me and that I can afford.

Printed/Typed Name

Signature

A.C. Edgar

A.C. Edgar

Date

Month Day Year

04/10/89

Transporter 1 Acknowledgement of Receipt of Materials

Date

Printed/Typed Name

Signature

Jim Schiber

Jim Schiber

Month Day Year

04/10/89

Transporter 2 Acknowledgement of Receipt of Materials

Date

Printed/Typed Name

Signature

Month Day Year

Discrepancy Indication Space

Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Date

Printed/Typed Name

Signature

Sandy Helm

Sandy Helm

Month Day Year

04/11/89

This form is authorized to require, pursuant to Illinois Revised Statutes, Chapter 111, Section 21, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner  
of not to exceed \$25,000 per day of violation. Failure of this information may result in a fine up to \$50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Environmental

GENERATOR NOTIFICATION  
TO CLAYTON CHEMICAL CO.  
REGARDING SHIPMENT OF WASTES  
RESTRICTED FROM LAND DISPOSAL  
UNDER 40 CFR 268.7(a)(1)

This notification is submitted by Sheller - Globe Corporation  
to Clayton Chemical in accordance with the Land Disposal Restrictions,  
Final Rule (effective Nov. 8, 1986) under 40 CFR 268.7 (a)(1). According  
to this final rule, generators of EPA Hazardous Waste Numbers F001 to  
F005 must provide the following information with each shipment delivered  
to CLAYTON CHEMICAL:

1. EPA Hazardous Waste Number(s): F002
2. Manifest number associated with this shipment: DL 2007962 3011/42
3. Waste analysis data (attach if different from Clayton's qualification analysis).

CORRESPONDING TREATMENT STANDARD

Instructions: For each solvent waste constituent present in this waste  
or its extract, check the appropriate box in front of  
the treatment standard(s) which apply or see item #4 below.

Solvent Constituent	(mg/liter)	
		All other spent solvent wastes
Acetone		0.59
n-Butyl alcohol		5.0
Carbon disulfide		4.81
Carbon tetrachloride		0.96
Chlorobenzene		0.05
Cresols and cresylic acid		0.75
Cyclohexanone		0.75
1,2-Dichlorobenzene		0.125
Ethyl acetate		0.75
Ethyl benzene		0.053
Ethyl ether		0.75
Isobutanol		5.0
Methanol		0.75
Methylene chloride	<input checked="" type="checkbox"/>	0.96
Methylene chloride (from the pharmaceutical industry)		0.96
Methyl ethyl ketone		0.75
Methyl isobutyl ketone		0.33
Nitrobenzene		0.125
Pyridine		0.33
Tetrachloroethylene		0.05
Toluene		0.33
1,1,1-Trichloroethane		0.41
1,1,2-Trichloroethane		0.96
Trichloroethylene		0.091
Trichlorofluoromethane		0.96
Xylene		0.75

4. ☒ This waste is restricted from land disposal based on knowledge  
of the waste, (check if applicable).

A.C. Edgar A.C. Edgar Environmental Services Inc. 4/10/89



APPENDIX B

SITE MAPS SHOWING SOIL  
SAMPLE LOCATIONS

# **SHELLER GLOBE: LOCATION MAP FOR SOIL SAMPLES 12-24A+B AND ASP 1-4A+B**

→ N

●-SAMPLES RECOVERED FROM  
GRASSY AREA ALONG ASPHALT  
PERIMETER

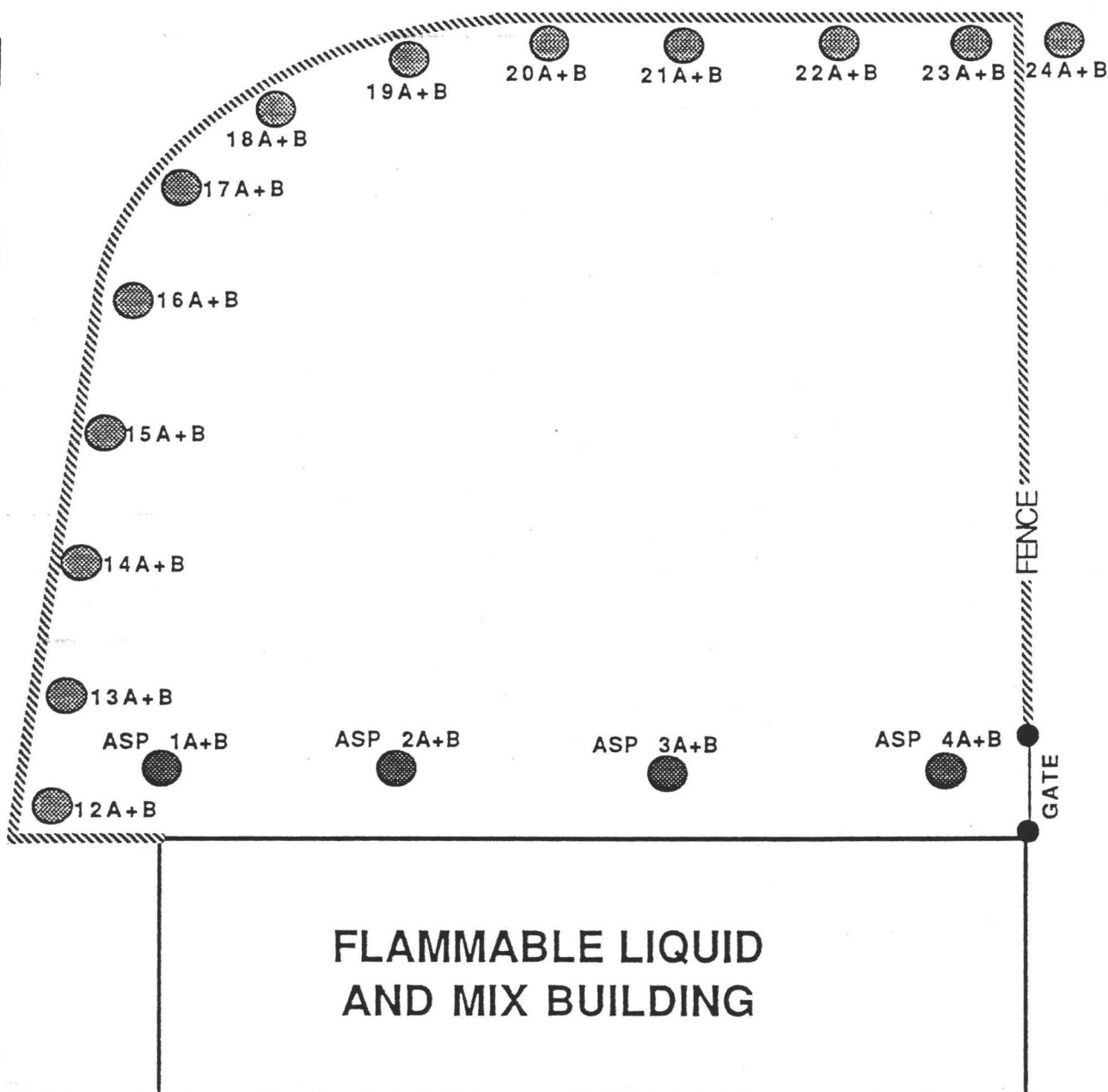
●-SAMPLES RECOVERED FROM  
BELOW 4in. OF ASPHALT

A-DENOTES 0"-12" SAMPLE  
INTERVAL

B-DENOTES 12"-24" SAMPLE  
INTERVAL

\* SAMPLE SERIES 12-24 TAKEN  
OVER 10' CENTERS

\* SAMPLE SERIES ASP 1-4  
TAKEN OVER 20' CENTERS



# FLAMMABLE LIQUID AND MIX BUILDING

## UNDERGROUND STORAGE TANKS

10A+B 11A+B



FENCE

## OLD HAZARDOUS WASTE STORAGE AREA

9 - A

8 - A

7 - A

6 - A

5 - A

4 - A

3 - A

2 - A

1 - A

ASP 5A+B  
ASP 6A+B  
ASP 7A+B

GATE

FENCE

## SHELLER GLOBE: LOCATION MAP FOR SOIL SAMPLES 1-11 A+B AND ASP 5-7



-GRASS COVER ON FILL



-SAMPLES RECOVERED FROM  
GRASSY AREAS



-SAMPLES RECOVERED FROM  
BELOW 10in. OF ASPHALT

A-DENOTES 0"-12" SAMPLE  
INTERVAL

B-DENOTES 12"-24" SAMPLE  
INTERVAL

\* SAMPLE SERIES 1-9 TAKEN  
OVER 10' CENTERS

\* SAMPLE SERIES ASP 5-7  
TAKEN OVER 20' CENTERS

(NOT TO SCALE)

APPENDIX C

PHOTO DOCUMENTATION OF THE  
DECONTAMINATION OF THE HAZARDOUS  
WASTE STORAGE AREA SURFACES

APPENDIX D

PHOTO DOCUMENTATION OF SOIL EXCAVATION  
LABORATORY REPORTS



POWER WASHING THE OLD HAZARDOUS WASTE



STORAGE AREA AND SIMULTANEOUS WASHWASTER RECOVERY



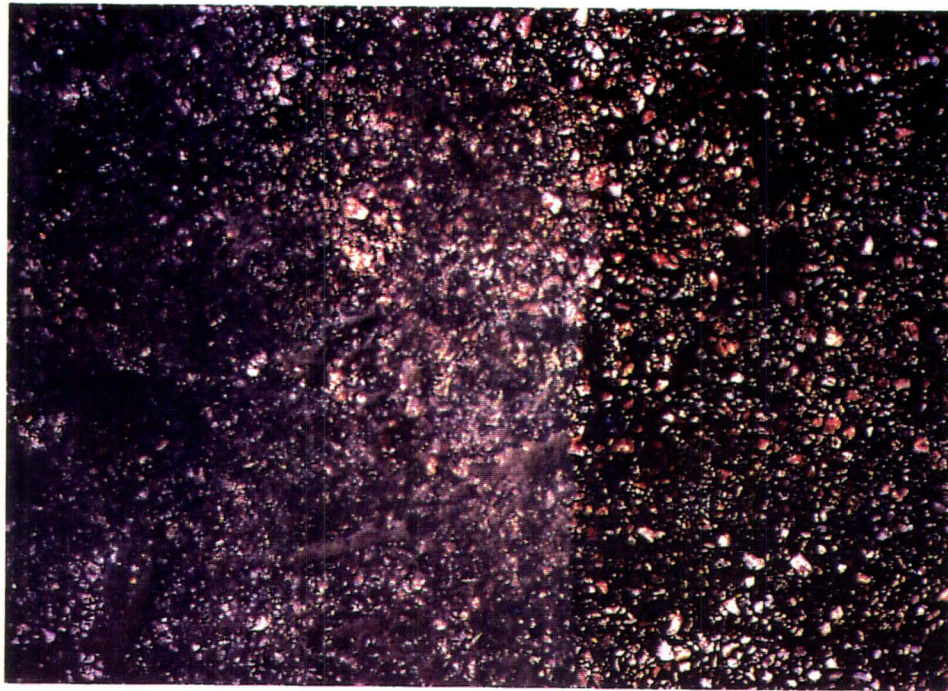


HIGH PRESSURE SCRUBBER WASHING WITH INDUSTRIAL  
DETERGENT



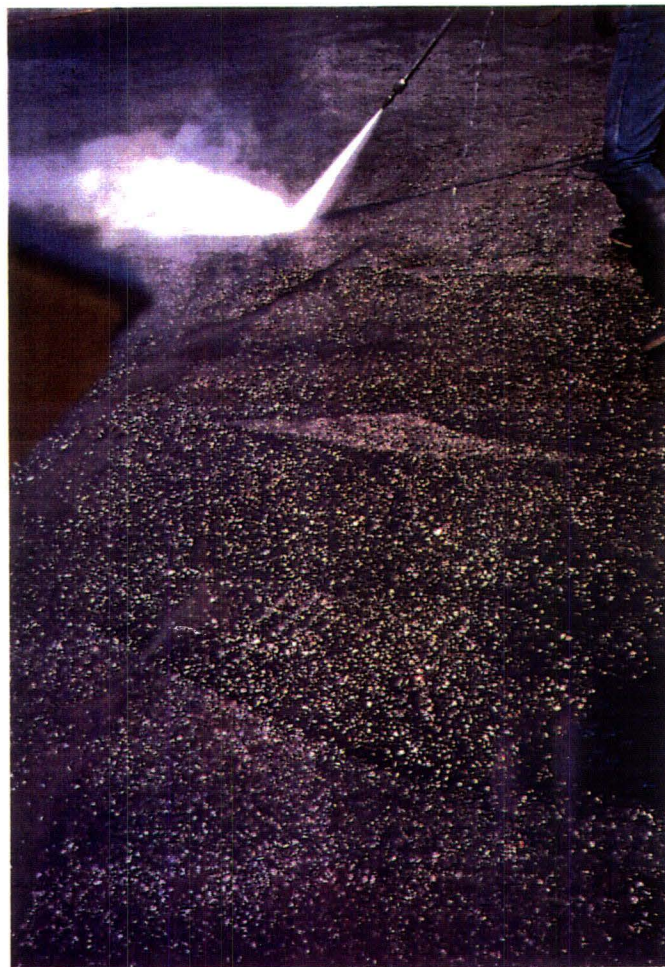
HIGH PRESSURE SCRUBBER PERFORMING SURFACE RINSE





ASPHALT SURFACE BEFORE AND AFTER POWERWASH

USE OF HIGH PRESSURE  
JET TO REMOVE  
STAINING







POWER WASHING THE CURRENT HAZARDOUS WASTE STORAGE AREA



WASH WATER RECOVERY

APPENDIX D

PHOTO DOCUMENTATION OF SOIL EXCAVATION  
LABORATORY REPORTS





EXCAVATION AT SAMPLE POINT #20



CONTAMINATED SOIL AWATING DISPOSAL





SAMPLING POINT #18 PRIOR TO EXCAVATION



SAMPLING POINT #18 FOLLOWING EXCAVATION





SAMPLE POINT #20 PRIOR TO EXCAVATION



SAMPLE POINT #20 FOLLOWING EXCAVATION

APPENDIX E

CLOSURE ACTIVITIES GENERATED  
WASTE DISPOSAL MANIFESTS

ALL COPIES MUST BE LEGIBLE. PLEASE TYPE. SEE INSTRUCTIONS ON BACK.

EXCISE - SPECIALTY - MCA - PATENTED 228

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 18276

SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-8761

FOR SHIPMENT OF HAZARDOUS, INFECTIOUS AND SPECIAL WASTE

State Form LPC 82 B/81 IL532-0810

Form Approved OMB No. 2060-0030, Expires 8-30-91

E TYPE (Form designed for use on electronic (12-pitch) typewriter) EPA Form 8700-22 (Rev. 8-86)

UNIFORM HAZARDOUS WASTE MANIFEST 1. Generator's US EPA ID No. Manifest Document No. 2. Page 1 of 1 Information in the shaded areas is not required by Federal law, but is required by Illinois law.

Generator's Name and Mailing Address Location If Different: A. Illinois Manifest Document Number

Sheller - Globe Corp. 3200 Main St. Keokuk, IA 52632 B. Illinois Generator's ID

Generator's Phone (319) 524-4560 C. Illinois Transporter's ID

Transporter 1 Company Name D. Illinois Transporter's Phone

Shiber Truck Company E. Illinois Transporter's ID

Transporter 2 Company Name F. Illinois Transporter's Phone

Designated Facility Name and Site Address G. Illinois Facility's ID

Dean Harbors, Inc. 300 S. Stony Island Ave. Chicago, IL 60617 H. Facility's Phone

DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) 12. Containers

Waste Sodium Hydroxide Solution, Corrosive Material, UN1824, (D002) 004DM 00220

13. Total Quantity 14. Unit Wt/Vol

009DM 00495

Additional Descriptions for Materials Listed Above K. Handling Codes for Wastes Listed Above

a) Chi #4540 - (D006) 1 = Gallons 2 = Cubic Yards

c) Chi #6594

Special Handling Instructions and Additional Information

If waste listed in Item 11 is undeliverable, return to generator.

GENERATOR'S CERTIFICATION. I hereby declare that the contents of this consignment are fully and accurately described above by

proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway

according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be

economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and

future threat to human health and the environment. OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select

the best waste management method that is available to me and that I can afford.

Printed/Typed Name Signature Date

A.C. Edgar 08/10/89

Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name Signature Date

Jack Baldridge 08/10/89

Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name Signature Date

Discrepancy Indication Space

Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name Signature Date

Month Day Year

Month Day Year

Month Day Year

Month Day Year

Month Day Year

Month Day Year

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Month Day Year

In case of a spill call the Illinois Office of Emergency Response at 217/782-3637 and the National Response Center at 800/424-8802 or 202/426-2675.



## PLEASE TYPE

(Form designed for use on this (12-inch) typewriter.)

EPA Form 8700-22 (Rev. 9-88)

Form Approved OMB No. 2050-0030, Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the placed areas is not required by Federal law, but is required by Illinois law.
3. Generator's Name and Mailing Address Sheller-Globe Corporation 3400 Main St. Kewanee, IA 52632		Location if Different:		A. Illinois Manifest Document Number IL 3011151 MANIFEST FEE EXEMPT	
4. Generator's Phone (319) 524-4569		5. US EPA ID Number ATTN: A.C. Edger		B. Illinois Generator's ID 9-19111-10001	
5. Transporter 1 Company Name Perrin Disposal Company		6. US EPA ID Number ILD 009848193		C. Illinois Transporter's ID 010182	
7. Transporter 2 Company Name		8. US EPA ID Number		D. Illinois Transporter's ID 010182	
9. Designated Facility Name and Site Address Perrin Disposal Company 4349 Southport Rd. Perrin, IL 61615		10. US EPA ID Number ILD 000805812		E. Illinois Facility's ID 1438120003	
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers		13. Total Quantity	
a. Non-hazardous Paint Overspray and Filters		No. Type		14. Unit (M/L)	
b. Non-hazardous Flaking Filters		0.14 B. A. 0.0014		2	
c. Non-hazardous Lead Contaminated Soil		0.12 D. M. 0.0660		1	
d.		0.04 B. A. 0.0004		2	
J. Additional Descriptions for Materials Listed Above		K. Handling Codes for Wastes Listed Above		In Item # 14	
2304		1 - Gallons 2 - Cubic Yards			
15. Special Handling Instructions and Additional Information					
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.					
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.					
Printed/Typed Name A.C. Edger		Signature A.C. Edger		Date 10 18 89	
17. Transporter 1 Acknowledgement of Receipt of Materials					
Printed/Typed Name JIM BURGESS		Signature Jim Burgess		Date 10 23 89	
18. Transporter 2 Acknowledgement of Receipt of Materials					
Printed/Typed Name Chuck Scott		Signature Chuck Scott		Date 10 30 89	
19. Discrepancy Indication Space					
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19					
Printed/Typed Name William Wilkins		Signature William Wilkins		Date 10 30 89	

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This document is to be used only for the purpose of reporting hazardous waste shipments to the National Response Center at (800) 424-9002 or (202) 462-6262.





# Peoria Disposal Company

1112 North George Avenue/Peoria, Illinois 61604/Phone: (309) 676-5176

CUSTOMER

Sheller Globe Corp.

Peoria, Ill. MR. \_\_\_\_\_

LDG.

AREA

C.O. #

4. SPECIAL  
WASTE  
MANIFEST

8011451

1. BOX NO. \_\_\_\_\_

2. TRAILER NO. 23043. TRUCK NO. 1176

4. OTHER EMPLOYEE

NOS. \_\_\_\_\_

5. LOAD TICKET NO. 137717

6. TICKET DATE 10/23/897. LOCATION NO. 8707188. EMPLOYEE NO. 30269. M T W T H F S S U 5:0010. LEAVE FOR LOC. 5:25 AM/F11. ARRIVE AT LOC. 8:23 AM/F12. LEAVE LOC. 10:00 AM/F

13. ARRIVE LDF. \_\_\_\_\_ AM/F

14. LEAVE LDF. \_\_\_\_\_ AM/F

RETURNING EMPTY BOX TO CUSTOMER

15. REARRIVE LOC. \_\_\_\_\_ AM/F

16. LEAVE LOC. \_\_\_\_\_ AM/F

17. WASTED HAULED 18. QUANTITY

LOCATION	
PACKER BOX	BOX-RETURNED
30 YD OPEN	BOX-DELIVERED
20 YD OPEN	BOX-BROUGHT IN
12 / 15 / 18 YD IND (CONE)	BOX-EXCHANGED
IND. SLUDGE	<input checked="" type="checkbox"/> LANDFILL
TANKER	EMPTY-FULL BOX
TANK	OTHER

TIME IN 8:23 AM TIME OUT 10:00

CUSTOMER GATEMAN

AC 70

CUSTOMER FOREMAN  
(IF NECESSARY)

Jim Burgess  
PDC DRIVER

☐ IF DRIVER HAS A DELAY IN TRAVEL/ETC.,  
PLEASE SHOW REASON ON BACK OF PINK  
PDC OFFICE COPY.

Paint over gravel filters 14 cu  
blocking filters  
Lead cotton soil  
CUSTOMER COPY  
4 Y

ATTACHMENT F

Summary of all Laboratory Results

Legend

B1 - B4	Background Samples
A	Sample Depth 0"-12"
B	Sample Depth 13"-24"
ASP	Sample Under Asphalt

Detection Limits - Samples Obtained  
April 11, 12, 13, 1989

Cadmium	.25 mg/kg
Lead	.25 mg/kg
Methylene Chloride	1 mg/kg
Toluene	1 mg/kg
M.E.K.	1 mg/kg
M.I.B.K.	1 mg/kg
Acetone	1 mg/kg
Xylene	1 mg/kg

DESCRIPTION	B1	B2	B3	B4	1A	1B	2A	2B	3A	3B	4A	4B	5A	5B
Cadmium	<0.25	<0.25	<0.25	<0.25	2.86	<0.25	.46	0.28	1.2	0.43	0.42	0.41	0.96	<0.25
Lead	33.0	30.8	21.0	34.4	61.0	26.7	26.2	14.0	24.8	39.4	26.2	71.2	68.6	21.4
Methylene Chlor.	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
M.E.K.	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
M.I.B.K.	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acetone	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	6A	6B	7A	7B	8A	8B	9A	9B	10A	10B	11A	11B	12A	12B
Cadmium	1.71	2.68	0.45	<0.25	0.45	<0.25	0.41	<0.25	0.58	<0.25	<0.25	<0.25	<0.25	0.75
Lead	71.6	61.0	36.7	14.8	29.8	21.4	34.2	43.0	17.7	4.8	34.2	21.2	15.9	41.6
Methylene Chlor.	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	<1	<1	<1	<1	<1	<1	<1	<1	<1	11	<1	<1	<1	<1
M.E.K.	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
M.I.B.K.	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acetone	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	13A	13B	14A	14B	15A	15B	16A	16B	17A	17B	18A	18B	19A	19B
Cadmium	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	0.34	<0.25	1.2	0.63	3.4	<0.25	<0.25	<0.25
Lead	8.6	26.2	20.8	31.1	29.7	27.4	8.9	33.0	30.4	19.0	284	38.8	28.9	29.3
Methylene Chlor.	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
M.E.K.	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
M.I.B.K.	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acetone	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	20A	20B	21A	21B	22A	22B	23A	23B	24A	24B	ASP 1A	ASP 1B	ASP 2A	ASP 2B
Cadmium	3.5	<0.25	0.50	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	1.4	<0.25	<0.25	<0.25	<0.25
Lead	178	38.6	22.0	24.8	16.4	30.2	15.8	16.0	33.9	49.2	25.9	33.4	26.4	27.2
Methylene Chlor.	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1.7	<1	0.8
M.E.K.	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
M.I.B.K.	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acetone	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

Analysis in accordance with procedures itemized in 40 CFR Part 136.

Units = mg/kg unless otherwise indicated.

DESCRIPTION	ASP 3A	ASP 3B	ASP 4A	ASP 4B	ASP 5A	ASP 5B	ASP 6A	ASP 6B	ASP 7A	ASP 7B
Cadmium	< 0.25	< 0.25	< 0.25	< 0.25	0.81	< 0.25	< 0.25	1.0	0.46	< 0.25
Lead	20.8	47.4	31.7	16.4	46.0	30.8	30.2	134	37.6	42.8
Methylene Chlor.	< 1	< 1	< 1	< 1	8.7	< 1	< 1	< 1	< 1	< 1
Toluene	< 1	< 1	< 1	< 1	< 1	3.5	0.5	9.4	< 1	< 1
M.E.K.	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
M.I.B.K.	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Acetone	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Xylene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	2.3	< 1	< 1

Analysis in accordance with procedures itemized in 40 CFR Part 136.

Units = mg/kg unless otherwise indicated.

ATTACHMENT G  
SITE RISK ASSESSMENT

As directed by Mr. Lininger of USEPA Region VII, during a telephone conversation on February 22, 1991, the site risk assessment formerly included in Attachment G has been replaced with Ms. Baerbel Schiller's letter of January 28, 1991. As indicated in Ms. Schiller's letter, although the methodology used in the former site risk assessment was not acceptable, the closure performance standards developed with this methodology are approvable.

KDK/bkw-261



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
726 MINNESOTA AVENUE  
KANSAS CITY, KANSAS 66101

JAN 28 1991

CERTIFIED MAILReturn Receipt Requested

Article Number: P 583 538 921

Mr. Bill Vandersall  
Environmental Coordinator  
Schlegel Keokuk Plant  
P.O. Box 727  
Keokuk, Iowa 52632

Re: Schlegel Keokuk Plant  
Formerly Sheller-Globe Corporation  
Keokuk, Iowa  
EPA ID No. IAD005136023

Letter of Warning/Notice of Deficiency

Dear Mr. Vandersall:

Receipt is acknowledged of the Closure Certification & Documentation Report prepared by your consultant, Randolph & Associates, Inc. on August 14, 1989. The U.S. Environmental Protection Agency (EPA) granted final approval for your facility's two hazardous waste container storage units closure plan, with modifications, on December 29, 1988. The closure certification cannot be accepted as complete until additional information is provided. The deficiencies in the certification are described in the following comments.

1. The revised certification report must include a site map, which is either drawn to scale or is adequately dimensioned, and which includes the following:

- a. legal boundaries of the facility;
- b. the location of the background soil samples;
- c. the location of the additional soil samples collected on June 29, 1989;

2

- d. the boundaries of the soil excavations that occurred on June-29, 1989.

2. The approved closure plan required sample analysis to be performed in accordance with methods described in the EPA document SW-846, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", third edition. The certification report does not identify the specific analytical methods that were utilized. The revised certification report must specify the analytical methods that were used to analyze the soil and washwater samples.

3. A copy of the completed manifest verifying the disposal of the excavated soil must be included in the revised report.

4. The revised certification report must describe any additional activities that occurred in the excavated areas after soil removal was completed (e.g., soil replacement, seeding and fertilizing).

5. Attachment I of the certification report did not contain analytical data. The revised report must include the QA/QC data in Attachment I.

6. The revised certification report must contain additional information regarding the four background samples that were collected. As a minimum, the sample collection procedures, sample locations, sample intervals, etc. must be provided.

7. In Attachment G to the closure certification report, you proposed health-based closure performance standards for the following constituents; cadmium, lead, methylene chloride, toluene and xylene. The method used to calculate the health-based levels is not acceptable. Therefore, Attachment G must be deleted from the revised closure certification report.

The Resource Conservation and Recovery Act (RCRA) methods used to calculate health-based closure performance standards in soil are dependent upon the classification of the hazardous constituents as either a carcinogen or non-carcinogen (systemic toxicant). For carcinogens, (known or suspected), the levels are based on an incidental soil ingestion of 0.1 gram/day, an adult body weight of 70 kg, a 70 year lifetime exposure and an Agency-verified cancer potency factor. For non-carcinogens, the levels are based upon a child's incidental soil ingestion of 0.2 gram/day, a child's body weight of 16 kg, a 5 year exposure period and an Agency-verified reference dose. In addition to the ingestion/inhalation routes of exposure, it should be shown that the constituents left in the soil will not leach into the groundwater.



You proposed a health-based closure performance standard for cadmium of 2.86 milligram/kilogram (mg/kg). As stated above, the method used to calculate the proposed closure performance standards is not approvable. However, the level proposed for cadmium is approvable for clean closure at this site.

With regard to lead, the closure performance standard you proposed is 134 mg/kg. This was the level detected in the soil sample labeled Asphalt 6B. The three highest levels of lead detected in the soil were 284 mg/kg, 178 mg/kg and 134 mg/kg. Lead was detected in soil samples 18A and 20A at 284 mg/kg and 170 mg/kg, respectively. These areas were excavated and additional sampling was performed. The highest level of lead in the soil following these excavations was 33.6 mg/kg. No additional soil excavation due to the presence of lead is anticipated to be necessary.

The closure performance standards proposed for methylene chloride and xylene, 8.7 mg/kg and 2.3 mg/kg, respectively, are within the general range of acceptability and are approvable for this specific site. The highest level of toluene detected in the soil was 11 mg/kg (sample 10B). This level is approvable as a clean closure performance standard for this facility.

To summarize, no additional excavation of contaminated soil appears to be necessary as part of the closure of the two container storage units at this facility.

The request for submission of the information requested in this letter is made pursuant to the authority of the applicable regulations and to Section 3007 of RCRA, 42 United States Code (USC), Section 6927, which allows the EPA to request certain information for the purposes of determining compliance with the federal hazardous waste regulations.

Schlegel may, if it desires, assert a business confidentiality claim covering part or all of the information submitted to, or reviewed by, EPA. Such a claim may be made by placing on (or attaching to) the information, at the time of its submittal to, or review by, EPA, a cover sheet with a stamped or printed legend, or other suitable form of notice employing language such as "trade secret", "proprietary", or "company confidential". Allegedly confidential portions of otherwise non-confidential documents should be clearly identified and may be submitted separately to facilitate identification and handling by EPA. If confidential treatment is sought only until a certain date or until the occurrence of a certain event, the request should so state.

Information submitted for which a claim of confidentiality is made will be disclosed by EPA only to the extent and by the

4

means authorized by the procedures specified in 40 CFR Part 2, Subpart B. If no such claim is made when information is received by EPA, information may be made available to the public without further notice.

Schlegel must submit two copies of the revised closure certification which includes the above requested information within 30 days of receipt of this letter to the attention of Don Lininger, RCRA/IOWA, at the letterhead address. Failure to respond within 30 days of your receipt of this letter could subject your facility to an enforcement action pursuant to Section 3008 of RCRA, 42 USC, Section 6928. Such enforcement action may include the assessment of penalties of up to \$25,000 per day of non-compliance. If you have any questions concerning this letter, please contact Mr. Lininger at (913) 551-7724.

Sincerely,



Baerbel Schiller  
Chief, RCRA Branch  
Waste Management Division

cc: Pete Hamlin, IDNR

ATTACHMENT H

LABORATORY REPORTS



# Randolph & Associates, Inc.

8901 NORTH INDUSTRIAL ROAD, PEORIA, ILLINOIS 61615-1589  
TELEPHONE 309-692-4422

Client: Shell Oil Corporation

REPORT DATE: 5-11-89

3200 Main Street

DATE REC'D: 4-14-89

Peoria, IL 61632

PROJECT NO.: 1-0993.003.01

Att: Mr. Andy Edson

PAGE 1 OF 9

AI SAMPLE	890414-02	890414-03	890414-04	890414-05
SAMPLE DATE	4-12-89	4-12-89	4-12-89	4-12-89
DESCRIPTION	Background 1	Background 2	Background 3	Background 4
Lead	< 0.25	< 0.25	< 0.25	< 0.25
Mercury	33.0	30.8	21.0	34.4
Ethylene Chloride	< 1	< 1	< 1	< 1
Benzene	< 1	< 1	< 1	< 1
Ethyl Ethyl Ketone	< 1	< 1	< 1	< 1
Ethyl Isobutyl Ketone	< 1	< 1	< 1	< 1
Acetone	< 1	< 1	< 1	< 1
Xylene	< 1	< 1	< 1	< 1

AI SAMPLE	890414-06	890414-07	890414-08	890414-09
SAMPLE DATE	4-12-89	4-12-89	4-12-89	4-12-89
DESCRIPTION	1A	1B	2A	2B
Lead	2.86	< 0.25	0.46	< 0.28
Mercury	61.0	20.7	26.2	14.0
Ethylene Chloride	< 1	< 1	< 1	< 1
Benzene	< 1	< 1	< 1	< 1
Ethyl Ethyl Ketone	< 1	< 1	< 1	< 1
Ethyl Isobutyl Ketone	< 1	< 1	< 1	< 1
Acetone	< 1	< 1	< 1	< 1
Xylene	< 1	< 1	< 1	< 1

Units: mg/kg unless otherwise indicated.

Report Approved By: Barbara G. Raya-Hash

Barbara G. Raya-Hash  
Manager of Laboratory Operations

Analysis in accordance with procedures itemized in 40 CFR Part 136.

REL:85

An IEPA Contract Laboratory

Disclaimer: Liability to Randolph & Associates, Inc. not to exceed cost of analysis.



# Randolph & Associates, Inc.

8901 NORTH INDUSTRIAL ROAD, PEORIA, ILLINOIS 61615-1589  
TELEPHONE 309-692-4422

TO: Sheller Globe Corporation

REPORT DATE: 5-11-89

3200 Main Street

DATE RECEIVED: 4-14-89

Peoria, IA 52632

PROJECT NO.: 1-0993.003.01

ATTN: Mr. Andy Edgar

PAGE 2 OF 9

PAI SAMPLE	890414-10	890414-11	890414-12	890414-13
SAMPLE DATE	4-12-89	4-12-89	4-12-89	4-12-89
DESCRIPTION	3A	3B	4A	4B
Mercury	1.2	0.43	0.42	0.41
Lead	24.8	39.4	26.2	71.2
Methylene Chloride	< 1	< 1	< 1	< 1
Toluene	< 1	< 1	< 1	< 1
Methyl Ethyl Ketone	< 1	< 1	< 1	< 1
Methyl Isobutyl Ketone	< 1	< 1	< 1	< 1
Acetone	< 1	< 1	< 1	< 1
Xylene	< 1	< 1	< 1	< 1

PAI SAMPLE	890414-14	890414-15	890414-16	890414-17
SAMPLE DATE	4-12-89	4-12-89	4-12-89	4-12-89
DESCRIPTION	5A	5B	6A	6B
Mercury	0.96	< 0.25	1.71	2.68
Lead	68.6	21.4	71.6	61.0
Methylene Chloride	< 1	< 1	< 1	< 1
Toluene	< 1	< 1	< 1	< 1
Methyl Ethyl Ketone	< 1	< 1	< 1	< 1
Methyl Isobutyl Ketone	< 1	< 1	< 1	< 1
Acetone	< 1	< 1	< 1	< 1
Xylene	< 1	< 1	< 1	< 1

Units = mg/kg unless otherwise indicated.

Report Approved By:

Barbara G. Raya-Hatch  
Manager of Laboratory Operations

Analysis in accordance with procedures itemized in 40 CFR Part 136.

Issued: 85

An IEPA Contract Laboratory

Disclaimer: Liability to Randolph & Associates, Inc. not to exceed cost of analysis.



# Randolph & Associates, Inc.

8901 NORTH INDUSTRIAL ROAD, PEORIA, ILLINOIS 61615-1589  
TELEPHONE 309-692-4422

TO: Sheller Globe Corporation

REPORT DATE: 5-11-89

3200 Main Street

DATE REC'D: 4-14-89

Peotuk, IA 52632

PROJECT NO.: 1-0993.003.01

ATTN: Mr. Andy Edgall

PAGE 3 OF 9

RAI SAMPLE	890414-18	890414-19	890414-20	890414-21
SAMPLE DATE	4-12-89	4-12-89	4-12-89	4-12-89
DESCRIPTION	7A	7B	8A	8B
Cadmium	0.45	< 0.25	0.45	< 0.25
Lead	36.7	14.8	29.8	21.4
Methylene Chloride	< 1	< 1	< 1	< 1
Toluene	< 1	< 1	< 1	< 1
Methyl Ethyl Ketone	< 1	< 1	< 1	< 1
Methyl Isobutyl Ketone	< 1	< 1	< 1	< 1
Acetone	< 1	< 1	< 1	< 1
Xylene	< 1	< 1	< 1	< 1

RAI SAMPLE	890414-22	890414-23	890414-24	890414-25
SAMPLE DATE	4-12-89	4-12-89	4-13-89	4-13-89
DESCRIPTION	9A	9B	10A	10B
Cadmium	0.41	< 0.25	0.58	< 0.25
Lead	34.2	43.0	17.7	4.8
Methylene Chloride	< 1	< 1	< 1	< 1
Toluene	< 1	< 1	< 1	11
Methyl Ethyl Ketone	< 1	< 1	< 1	< 1
Methyl Isobutyl Ketone	< 1	< 1	< 1	< 1
Acetone	< 1	< 1	< 1	< 1
Xylene	< 1	< 1	< 1	< 1

Units = mg/kg unless otherwise indicated.

Report Approved By: Barbara G. Raya-Hash  
Manager of Laboratory Operations

Analysis in accordance with procedures itemized in 40 CFR Part 135.

See L:85

An IEPA Contract Laboratory

Disclaimer: Liability to Randolph & Associates, Inc. not to exceed cost of analysis.



# Randolph & Associates, Inc.

8901 NORTH INDUSTRIAL ROAD, PEORIA, ILLINOIS 61615-1589  
TELEPHONE 309-692-4422

TO: Sheller Globe Corporation

3200 Main Street

Keokuk, IA 52632

ATTN: Mr. Andy Edgar

REPORT DATE: 5-11-89

DATE REC'D: 4-14-89

PROJECT NO.: 1-0993.003.01

PAGE 4 OF 9

RAI SAMPLE	890414-26	890414-27	890414-28	890414-29
SAMPLE DATE	4-13-89	4-13-89	4-11-89	4-11-89
DESCRIPTION	11A	11B	12A	12B
Cadmium	< 0.25	< 0.25	< 0.25	0.75
Lead	34.2	21.2	15.9	41.6
Methylene Chloride	< 1	< 1	< 1	< 1
Toluene	< 1	< 1	< 1	< 1
Methyl Ethyl Ketone	< 1	< 1	< 1	< 1
Methyl Isobutyl Ketone	< 1	< 1	< 1	< 1
Acetone	< 1	< 1	< 1	< 1
Xylene	< 1	< 1	< 1	< 1

RAI SAMPLE	890414-30	890414-31	890414-32	890414-33
SAMPLE DATE	4-11-89	4-11-89	4-13-89	4-13-89
DESCRIPTION	13A	13B	14A	14B
Cadmium	< 0.25	< 0.25	< 0.25	< 0.25
Lead	8.6	26.2	20.8	31.1
Methylene Chloride	< 1	< 1	< 1	< 1
Toluene	< 1	< 1	< 1	< 1
Methyl Ethyl Ketone	< 1	< 1	< 1	< 1
Methyl Isobutyl Ketone	< 1	< 1	< 1	< 1
Acetone	< 1	< 1	< 1	< 1
Xylene	< 1	< 1	< 1	< 1

Units = mg/kg unless otherwise indicated.

Report Approved By:

Barbara G. Rava-Hash  
Manager of Laboratory Operations

Analysis in accordance with procedures itemized in 40 CFR Part 136.

sae/L:85

An IEPA Contract Laboratory

Disclaimer: Liability to Randolph & Associates, Inc. not to exceed cost of analysis.





# Randolph & Associates, Inc.

8901 NORTH INDUSTRIAL ROAD, PEORIA, ILLINOIS 61615-1589  
TELEPHONE 309-692-4422

TO: Sheller Globe Corporation

REPORT DATE: 5-11-89

3200 Main Street

DATE RECEIVED: 4-14-89

Peokuk, IA 52632

PROJECT NO.: 1-0993.003.01

ATTN: Mr. Andy Edgar

PAGE 5 OF 9

RAI SAMPLE	890414-34	890414-35	890414-36	890414-37
SAMPLE DATE	4-11-89	4-11-89	4-11-89	4-11-89
DESCRIPTION	15A	15B	16A	16B

Cadmium	< 0.25	< 0.25	0.34	< 0.25
Lead	29.7	27.4	8.9	33.0
Methylene Chloride	< 1	< 1	< 1	< 1
Toluene	< 1	< 1	< 1	< 1
Methyl Ethyl Ketone	< 1	< 1	< 1	< 1
Methyl Isobutyl Ketone	< 1	< 1	< 1	< 1
Acetone	< 1	< 1	< 1	< 1
Xylene	< 1	< 1	< 1	< 1

RAI SAMPLE	890414-38	890414-39	890414-40	890414-41
SAMPLE DATE	4-13-89	4-13-89	4-13-89	4-13-89
DESCRIPTION	17A	17B	18A	18B

Cadmium	1.2	0.63	3.4	< 0.25
Lead	30.4	19.0	284	38.8
Methylene Chloride	< 1	< 1	< 1	< 1
Toluene	< 1	< 1	< 1	< 1
Methyl Ethyl Ketone	< 1	< 1	< 1	< 1
Methyl Isobutyl Ketone	< 1	< 1	< 1	< 1
Acetone	< 1	< 1	< 1	< 1
Xylene	< 1	< 1	< 1	< 1

Units = mg/kg unless otherwise indicated.

Report Approved By: Barbara G. Ray-Hash

Barbara G. Ray-Hash  
Manager of Laboratory Operations

Analysis in accordance with procedures itemized in 40 CFR Part 136.

see L:85

An IEPA Contract Laboratory

Disclaimer: Liability to Randolph & Associates, Inc. not to exceed cost of analysis.





# Randolph & Associates, Inc.

8901 NORTH INDUSTRIAL ROAD, PEORIA, ILLINOIS 61615-1589  
TELEPHONE 309-692-4422

TO: Sheller Globe Corporation

REPORT DATE: 5-11-89

3200 Main Street

DATE RECEIVED: 4-14-89

Peokuk, IA 52632

PROJECT NO.: 1-0999.003.01

ATTN: Mr. Andy Edgar

PAGE 6 OF 9

RAI SAMPLE	890414-42	890414-43	890414-44	890414-45
SAMPLE DATE	4-13-89	4-13-89	4-13-89	4-13-89

DESCRIPTION	19A	19B	20A	20B
-------------	-----	-----	-----	-----

Cadmium	< 0.25	< 0.25	3.5	< 0.25
Lead	28.9	29.3	178	38.6
Methylene Chloride	< 1	< 1	< 1	< 1
Toluene	< 1	< 1	< 1	< 1
Methyl Ethyl Ketone	< 1	< 1	< 1	< 1
Methyl Isobutyl Ketone	< 1	< 1	< 1	< 1
Acetone	< 1	< 1	< 1	< 1
Xylene	< 1	< 1	< 1	< 1

RAI SAMPLE	890414-46	890414-47	890414-48	890414-49
SAMPLE DATE	4-13-89	4-13-89	4-13-89	4-13-89

DESCRIPTION	21A	21B	22A	22B
-------------	-----	-----	-----	-----

Cadmium	0.50	< 0.25	< 0.25	< 0.25
Lead	22.0	24.8	16.4	30.2
Methylene Chloride	< 1	< 1	< 1	< 1
Toluene	< 1	< 1	< 1	< 1
Methyl Ethyl Ketone	< 1	< 1	< 1	< 1
Methyl Isobutyl Ketone	< 1	< 1	< 1	< 1
Acetone	< 1	< 1	< 1	< 1
Xylene	< 1	< 1	< 1	< 1

Units = mg/kg unless otherwise indicated.

Report Approved By:

Barbara G. Rava-Hess  
Manager of Laboratory Operations

Analysis in accordance with procedures itemized in 40 CFR Part 136.

5/11/89

An IEPA Contract Laboratory

Disclaimer: Liability to Randolph & Associates, Inc. not to exceed cost of analysis.



# Randolph & Associates, Inc.

8901 NORTH INDUSTRIAL ROAD, PEORIA, ILLINOIS 61615-1589  
TELEPHONE 309-692-4422

Client: Shelter Globe Corporation

REPORT DATE: 5-11-89

3200 Main Street

DATE REC'D: 4-14-89

Peotuh, IA 52632

PROJECT NO.: 1-0993.003.01

ATTN: Mr. Andy Edgar

PAGE 7 OF 9

RAI SAMPLE	890414-50	890414-51	890414-52	890414-53
SAMPLE DATE	4-13-89	4-13-89	4-13-89	4-13-89

DESCRIPTION	23A	23B	24A	24B
-------------	-----	-----	-----	-----

Cadmium	< 0.25	< 0.25	< 0.25	1.4
Lead	15.8	16.0	33.9	49.2
Methylene Chloride	< 1	< 1	< 1	< 1
Toluene	< 1	< 1	< 1	< 1
Methyl Ethyl Ketone	< 1	< 1	< 1	< 1
Methyl Isobutyl Ketone	< 1	< 1	< 1	< 1
Acetone	< 1	< 1	< 1	< 1
Xylene	< 1	< 1	< 1	< 1

RAI SAMPLE	890414-54	890414-55	890414-56	890414-57
SAMPLE DATE	4-13-89	4-13-89	4-13-89	4-13-89

DESCRIPTION	ASP 1A	ASP 1B	ASP 2A	ASP 2B
-------------	--------	--------	--------	--------

Cadmium	< 0.25	< 0.25	< 0.25	< 0.25
Lead	25.9	33.4	26.4	27.2
Methylene Chloride	< 1	< 1	< 1	< 1
Toluene	< 1	1.7	< 1	0.8
Methyl Ethyl Ketone	< 1	< 1	< 1	< 1
Methyl Isobutyl Ketone	< 1	< 1	< 1	< 1
Acetone	< 1	< 1	< 1	< 1
Xylene	< 1	< 1	< 1	< 1

Units = mg/kg unless otherwise indicated.

Report Approved By: Barbara G. Raya-Hash  
Barbara G. Raya-Hash  
Manager of Laboratory Operations

Analysis in accordance with procedures itemized in 40 CFR Part 136.

3ae/L105

An IEPA Contract Laboratory

Disclaimer: Liability to Randolph & Associates, Inc. not to exceed cost of analysis.



# Randolph & Associates, Inc.

8901 NORTH INDUSTRIAL ROAD, PEORIA, ILLINOIS 61615-1589  
TELEPHONE 309-692-4422

TO: Shellor Globe Corporation

REPORT DATE: 5-11-89

3200 Main Street

DATE REC'D: 4-14-89

Peokuk, IA 52632

PROJECT NO.: 1-0993.003.01

ATTN: Mr. Andy Edgar

PAGE 8 OF 9

RAI SAMPLE	890414-58	890414-59	890414-60	890414-61
SAMPLE DATE	4-13-89	4-13-89	4-13-89	4-13-89
DESCRIPTION	ASP 3A	ASP 3B	ASP 4A	ASP 4B
Cadmium	< 0.25	< 0.25	< 0.25	< 0.25
Lead	20.8	47.4	31.7	16.4
Methylene Chloride	< 1	< 1	< 1	< 1
Toluene	< 1	< 1	< 1	< 1
Methyl Ethyl Ketone	< 1	< 1	< 1	< 1
Methyl Isobutyl Ketone	< 1	< 1	< 1	< 1
Acetone	< 1	< 1	< 1	< 1
Xylene	< 1	< 1	< 1	< 1

RAI SAMPLE	890414-62	890414-63	890414-64	890414-65
SAMPLE DATE	4-13-89	4-13-89	4-13-89	4-13-89
DESCRIPTION	ASP 5A	ASP 5B	ASP 6A	ASP 6B
Cadmium	0.81	< 0.25	< 0.25	1.0
Lead	46.0	30.8	30.2	134
Methylene Chloride	8.7	< 1	< 1	< 1
Toluene	< 1	3.5	0.5	9.4
Methyl Ethyl Ketone	< 1	< 1	< 1	< 1
Methyl Isobutyl Ketone	< 1	< 1	< 1	< 1
Acetone	< 1	< 1	< 1	< 1
Xylene	< 1	< 1	< 1	2.3

Units = mg/kg unless otherwise indicated.

Report Approved By:

Barbara G. Riva-Rash  
Manager of Laboratory Operations

Analysis in accordance with procedures itemized in 40 CFR Part 136.

rad/L:05

An IEPA Contract Laboratory

Disclaimer: Liability to Randolph & Associates, Inc. not to exceed cost of analysis.



# Randolph & Associates, Inc.

8901 NORTH INDUSTRIAL ROAD, PEORIA, ILLINOIS 61615-1589  
TELEPHONE 309-692-4422

Sheller Globe Corporation

3200 Main Street

Keokuk, IA 52632

Attn: Mr. Andy Edgar

REPORT DATE: 5-11-89

DATE RECEIVED: 4-14-89

PROJECT NO.: 1-0993.003.01

PAGE 9 OF 9

SAMPLE	890414-66	890414-67
SAMPLE DATE	4-13-89	4-13-89
DESCRIPTION	ASP 7A	ASP 7B
Lead	0.46	0.25
Mercury	37.6	42.8
Ethylene Chloride	1	1
Toluene	1	1
Ethyl Ethyl Ketone	1	1
Ethyl Isobutyl Ketone	1	1
Acetone	1	1
Benzene	1	1

Units = mg/kg unless otherwise indicated.

Report Approved By:

Barbara G. Ray Hash  
Manager of Laboratory Operations

Analysis in accordance with procedures itemized in 40 CFR Part 136.  
Date: 5/1/89

An IEPA Contract Laboratory

Disclaimer: Liability to Randolph & Associates, Inc. not to exceed cost of analysis.



# Randolph & Associates, Inc.

8901 NORTH INDUSTRIAL ROAD, PEORIA, ILLINOIS 61615-1589  
TELEPHONE 309-692-4422

#4

## FEDERAL HAZARDOUS WASTE CHARACTERISTICS ANALYSIS\*

CLIENT: Sheller Globe Corporation

REPORT DATE: 7-20-89

3200 Main Street

SAMPLE REC'D.: 6-8-89

Leokuk, IA 52632

RAI SAMPLE: 890608-42

ATTN: Mr. Andy Edgar

RAI JOB NO.: 2-0993.001.01

SAMPLE I.D. Wash Water

PAGE 1 OF 1

Parameter	Total Metal Results (ppm)	E.P. Tox Metal Results (ppm)	Maximum Allowable Concentration (ppm)
Arsenic	0.67	--	5.0
Barium	3.3	--	100.0
Cadmium	0.26	--	1.0
Chromium, T	2.3	--	5.0
Lead	7.8	< 0.5	5.0
Mercury	< 0.020	--	0.2
Selenium	< 1.0	--	1.0
Silver	< 0.5	--	5.0

Other Parameters	Results	Other Parameters	Results
Ignitability, oC	> 100	Total Cyanide, ppm	< 0.10
Corrosivity (pH), Units	7.61	Reactive Cyanide, ppm	< 0.10
Total Solids, %	2.37	Total Sulfide, ppm	< 4
Phenol, ppm	< 1.0	Reactive Sulfide, ppm	< 4
Paint Filter Test	NO		

REPORT APPROVED BY: Barbara G. Raya-Hash

Barbara G. Raya-Hash, Manager  
Laboratory Operations

\*All analyses are conducted using recommended USEPA and IEPA Methods.

RAE/L:87

An IEPA Contract Laboratory

Disclaimer: Liability to Randolph & Associates, Inc. not to exceed cost of analysis.

STRUCTURAL ELECTRICAL ENVIRONMENTAL LABORATORY MECHANICAL STRUCTURAL SURVEYING TRANSPORTATION



TO: Sheller Globe Corporation

REPORT DATE: 7-27-89

3200 Main Street

DATE REC'D: 6-8-89

Keokuk, IA 52632

PROJECT NO.: 2-0993.003.01

ATTN: Mr. Andy Edgar

PAGE 1 OF 1

RAI SAMPLE 890608-42  
SAMPLE DATE 6-7-89

DESCRIPTION Washwater

Methylene Chloride	5
Toluene	50
Methyl-Ethyl-Ketone	11
Methyl-Isobutyl-Ketone	7J
Acetone	35
Xylene	< 5

J = Estimated Concentration.

Results in ug/l (ppb) unless otherwise indicated.

Report Approved By: Barbara G. Raya-Hash

Barbara G. Raya-Hash  
Manager of Laboratory Operations

Analysis in accordance with procedures itemized in 40 CFR Part 136.  
sae/L:135

An IEPA Contract Laboratory

Disclaimer: Liability to Randolph & Associates, Inc. not to exceed cost of analysis.



# Randolph & Associates, Inc.

8901 NORTH INDUSTRIAL ROAD, PEORIA, ILLINOIS 61615-1589  
TELEPHONE 309-692-4422

TO: Sheller Globe Corporation

REPORT DATE: 7-27-89

3200 Main Street

DATE REC'D: 6-30-89

Keokuk, IA 52632

PROJECT NO.: 2-0993.003.01

ATTN: Mr. Andy Edgar

PAGE 1 OF 1

PAI SAMPLE	8900630-01	890630-02	890630-03	890630-04
SAMPLE DATE	6-29-89	6-29-89	6-29-89	6-29-89
DESCRIPTION	Pt. 18 South 0"-12"	Pt. 18 North 0"-12"	Pt. 20 South 0"-12"	Pt. 20 North 0"-12"
Lead, mg/kg	28.4	33.6	29.3	28.4

Report Approved By: \_\_\_\_\_

Barbara G. Raya-Hash  
Manager of Laboratory Operations

Analysis in accordance with procedures itemized in 40 CFR Part 136.

See/L:135

An IEPA Contract Laboratory

Disclaimer: Liability to Randolph & Associates, Inc. not to exceed cost of analysis.

GENERAL

ELECTRICAL

ENVIRONMENTAL

LABORATORY

MECHANICAL

STRUCTURAL

SURVEYING

TRANSPORTATION



ATTACHMENT I

QA/QC DATA

Sheller Globe Corporation  
Keokuk, Iowa

Inorganic QA/QC consists of spiking at a frequency of 5% and duplicating at a frequency of 10%. The following methods were used for the inorganic analyses. One blank was run per set of 20 samples.

<u>Parameter</u>	<u>Reference</u>	<u>Method Number</u>
Cadmium	Chemical Analysis of Water and Wastewater	ICP 200.7
Lead	Chemical Analysis of Water and Wastewater	ICP 200.7

QA/QC consists of one set of matrix spike/matrix spike duplicates per set of 20 samples.

The samples were extracted for high level VOCs (i.e. 5 g. sample extracted with 5 ml methanol) and analyzed by direct injection on a gas chromatograph with flame ionization detector. A procedural blank was extracted each day of preparation.

jmt.104



Environmental  
Science &  
Engineering, Inc.

8901 N. Industrial Road  
Peoria, Illinois 61615-1589

(309) 692-4422  
Fax (309) 692-9364

An IEPA Contract Laboratory

Volatile Organic Matrix Spike / Matrix Spike Duplicate Recovery

Sample No.: 890414-19

Compound	Spike Added (ug/gm)	Sample Conc. (ug/gm)	MS Conc. (ug/gm)	MS % Rec.#	QC Limits Rec.*
Methylene Chloride	25	< 1	22.5	90	*
Acetone	25	< 1	18.3	73	*
2-Butanone	25	< 1	14.4	58	*
4-methyl-2-pentanone	25	< 1	18.1	72	*
Toluene	25	< 1	13.5	54	*
Xylene	25	< 1	14.3	57	*

Compound	Spike Added (ug/gm)	MSD Conc. (ug/gm)	MSD % Rec #	% RPD #	QC Limits	
					RPD	Rec.
Methylene Chloride	25	21.6	86	4.5	*	*
Acetone	25	19.6	78	6.6	*	*
2-Butanone	25	15.2	61	5.0	*	*
4-methyl-2-pentanone	25	17.7	71	1.4	*	*
Toluene	25	13.3	53	1.9	*	*
Xylene	25	14.8	59	3.4	*	*

# Column to be used to flag recovery and RPD values with an asterisk.

\* Limits to be established.

Report Approved By: Melvin D. Rozeboom

Melvin D. Rozeboom, Ph.D.  
Project Manager



Environmental  
Science &  
Engineering, Inc.

8901 N. Industrial Road  
Peoria, Illinois 61615-1589

(309) 692-4422  
Fax (309) 692-9364

An IEPA Contract Laboratory

Volatile Organic Matrix Spike / Matrix Spike Duplicate Recovery

Sample No.: 890414-33

Compound	Spike Added (ug/gm)	Sample Conc. (ug/gm)	MS Conc. (ug/gm)	MS % Rec.#	QC Limits Rec.*
Methylene Chloride	50	< 1	43.1	86	*
Acetone	50	< 1	41.7	84	*
2-Butanone	50	< 1	45.3	90	*
4-methyl-2-pentanone	50	< 1	52.7	110	*
Toluene	50	< 1	49.3	99	*
Xylene	50	< 1	48.9	98	*

Compound	Spike Added (ug/gm)	MSD Conc. (ug/gm)	MSD % Rec #	% RPD #	QC Limits	
					RPD	Rec.
Methylene Chloride	50	41.2	83	3.6	*	*
Acetone	50	42.5	85	1.2	*	*
2-Butanone	50	45.8	92	2.2	*	*
4-methyl-2-pentanone	50	51.4	100	9.5	*	*
Toluene	50	47.4	95	4.1	*	*
Xylene	50	46.2	93	5.2	*	*

# Column to be used to flag recovery and RPD values with an asterisk.

\* Limits to be established.

Report Approved By:

*Melvin D. Rozeboom*

Melvin D. Rozeboom, Ph.D.

Project Manager



Environmental  
Science &  
Engineering, Inc.

8901 N. Industrial Road  
Peoria, Illinois 61615-1589

(309) 692-4422  
Fax (309) 692-9364

An IEPA Contract Laboratory

Volatile Organic Matrix Spike / Matrix Spike Duplicate Recovery

Sample No.: 890414-51

Compound	Spike Added (ug/gm)	Sample Conc. (ug/gm)	MS Conc. (ug/gm)	MS % Rec.#	QC Limits Rec.*
Methylene Chloride	25	< 1	18.5	74	*
Acetone	25	< 1	17.1	68	*
2-Butanone	25	< 1	19.4	78	*
4-methyl-2-pentanone	25	< 1	23.9	96	*
Toluene	25	< 1	19.0	76	*
Xylene	25	< 1	21.1	84	*

Compound	Spike Added (ug/gm)	MSD Conc. (ug/gm)	MSD % Rec #	% RPD #	QC Limits	
					RPD	Rec.
Methylene Chloride	25	25.2	100	29.9	*	*
Acetone	25	19.5	78	12.0	*	*
2-Butanone	25	20.7	83	6.2	*	*
4-methyl-2-pentanone	25	25.3	101	5.1	*	*
Toluene	25	22.3	78	15.8	*	*
Xylene	25	23.6	94	11.2	*	*

# Column to be used to flag recovery and RPD values with an asterisk.

\* Limits to be established.

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### Metals Spike Sample Recovery

Sample No.: 890414-03

Concentration Units: ug/L

Analyte	Control Limit %R	Spike Sample		Sample		Spike Added (SA)	%R	Q	M
		Result (SSR)	C	Result (SR)	C				
Cadmium Lead		1,633		5.0	U	2,000	81.6		P
		2,121		615		2,000	75.3		P

Sample No.: 890414-21

Concentration Units: ug/L

Analyte	Control Limit %R	Spike Sample		Sample		Spike Added (SA)	%R	Q	M
		Result (SSR)	C	Result (SR)	C				
Cadmium Lead		1,649		5.0	U	2,000	82.4		P
		1,966		427		2,000	77.0		P

Sample No.: 890414-51

Concentration Units: ug/L

Analyte	Control Limit %R	Spike Sample		Sample		Spike Added (SA)	%R	Q	M
		Result (SSR)	C	Result (SR)	C				
Cadmium Lead		1,586		5.0	U	2,000	79.3		P
		2,097		319		2,000	88.9		P

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Metals Duplicate Samples

An IEPA Contract Laboratory

Sample No.: 890414-02

Concentration Units: mg/kg dry weight

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Cadmium		0.25	U	0.25	U	NC		P
Lead		33.0		28.2		15.7		P

Sample No.: 890414-10

Concentration Units: mg/kg dry weight basis

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Cadmium		1.2		1.1		8.7		P
Lead		24.8		26.2		5.5		P

Sample No.: 890414-20

Concentration Units: mg/kg dry weight

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Cadmium	$\pm 0.25$	0.45		0.72			*	P
Lead		29.8		52.3		54.8	*	P

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Melvin D. Rozeboom

Melvin D. Rozeboom, Ph.D.  
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### Metals Duplicate Samples

An IEPA Contract Laboratory

Sample No.: 890414-30

Concentration Units: mg/kg dry weight

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Cadmium		0.25	U	0.25		NC		P
Lead		8.6		9.5		9.9		P

Sample No.: 890414-40

Concentration Units: mg/kg dry weight basis

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Cadmium		3.4		3.4		0		P
Lead		284		196		36.7	*	P

Sample No.: 890414-50

Concentration Units: mg/kg dry weight

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Cadmium		0.25	U	0.25	U	NC		P
Lead		15.8		24.2		42	*	P

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### Metals Duplicate Samples

Sample No.: 890414-60

Concentration Units: mg/kg dry weight

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Cadmium Lead		0.25 31.7	U	0.25 24.8		NC 24.4	*	P P

Report Approved By:

Melvin D. Rozeboom

Melvin D. Rozeboom, Ph.D.  
Project Manager



CITY OF KEOKUK  
T65N - R5W - 5th P.M.  
LEE COUNTY - IOWA

**DESCRIPTION:**  
A 44.480 acre tract, fronting 1312.69 ft. on the southwest side of Main Street, located in the N4, Section 23, T65N, R5W, 5th P.M., City of Keokuk, Lee County, Iowa and described by the following metes and bounds:  
Beginning at the intersection of the west line of Main Street and the north line of South 31st Street; thence N89°36'27"W, 869.80 ft. with the north line of said South 31st Street to the west line of vacated Jackson Avenue; thence N00°05'27"W, 1.00 ft.; thence N89°36'27"W, 139.00 ft. to the westerly right of way line of the Burlington Northern Railroad Spur Line No. 110; thence with said right of way line the following courses and distances: S29°20'23"E, 64.30 ft. and Southeastery 187.21 ft. with a 603.69 ft. radius curve, concave northeasterly, through a central angle of 179°43'37" (L.C. = S35°49'19"E, 186.38 ft.) to the south line of the NE1, said Sec. 23; thence N89°28'22"W, 139.00 ft. with the said south line of the NE1 to the center of Section 23; thence S89°48'42"W, 1320.99 ft. with the south line of the NW1, said Sec. 23 to the SW corner, SE1, NW1; thence N00°18'17"W, 665.56 ft.; thence S89°40'28"W, 308.88 ft. to the easterly right of way line of the Burlington Northern Railroad; thence Northwesterly, 582.10 ft. with a 1639.38 ft. radius curve, concave westerly, through a central angle of 20°41'25" (L.C. = N14°04'02"W, 588.79 ft.) with the said easterly right of way line to the southerly right of way line of Burlington Northern Track No. 110; thence with said Burlington Northern Track No. 110 right of way line the following courses and distances: Southeastery, 234.95 ft. with a right of way curve, concave northeasterly, having a radius of 813.62 ft. through a central angle of 26°32'44" (L.C. = S36°59'43"E, 234.14 ft.); S65°18'45"E, 1346.60 ft. and Southeastery, 49.60 ft. with a 788.02 ft. radius curve, concave Southeastery, through a central angle of 63°30'08" (L.C. = S63°28'02"E, 49.58 ft.); thence N00°10'31"E, 67.19 ft. to the northerly right of way line of said Burlington Northern Track No. 110; thence with said northerly right of way line the following courses and distances: Northwesterly, 22.00 ft. with a 848.02 ft. radius curve, concave southwesterly, through a central angle of 01°28'05" (L.C. = N64°43'13"W, 22.80 ft.); N65°10'48"W, 356.40 ft. to an existing fence; thence N50°58'00"E, 938.81 ft. to the westerly right of way line of Main Street; thence S39°04'00"E, 550.00 ft. with said Main Street right of way to the northeasterly corner of the (former) Hutter Oil Co. waste, thence with said Hutter Oil Co. waste the following courses and distances: S80°05'27"W, 200.00 ft.; S10°48'00"E, 123.00 ft.; East, 211.00 ft.; North, 22.00 ft.; N82°46'04"E, 65.01 ft. to the westerly right of way line of Main Street; thence with said westerly right of way line the following courses and distances: S39°04'00"E, 116.60 ft.; N89°43'24"E, 12.98 ft.; S39°04'00"E, 211.00 ft.; S39°04'00"E, 430.87 ft. to the point of beginning, containing 44.480 acres and subject to right of ways and other easements as noted.

**COURTHOUSE RECORDS**

(1)	Deed Book 98, page 367	- 9/29/37
(2)	Deed Book 100, page 67	
(3)	Deed Book 106, page 230	
(4)	Deed Book 111, page 427	
(5)	Deed Book 116, page 429	- 11/30/49
(6)	Auditor's Plat No. 3	
(7)	Deed Book 97, page 60	
(8)	Deed Book 112, page 52	
(9)	Deed Book 111, page 71	
(10)	Deed Book 122, page 133	
(11)	Ordinance 911 - 8/26/57	
(12)	Deed Book 151, page 122	- 6/20/69
(13)	Deed Book 138, page 427	- 6/1/64
(14)	Deed Book 143, page 279	- 6/30/66
(15)	Deed Book 151, page 122	- 6/30/69
(16)	Deed Book 182, page 428	- 10/20/83

**EASEMENTS & RIGHT OF WAYS**

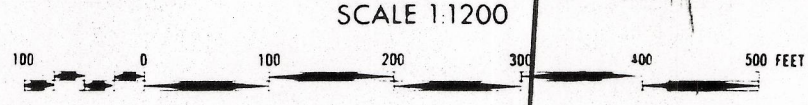
Track No. 110 - Deed Book 81, pages 431 and 484
B.N. Main Line - Deed Book 44, page 629
Sanitary Sewer - Deed Book 165, page 226
Union Electric - Deed Book 143, page 268
Track No. 148 - Deed Book 137, page 183
Union Electric - Deed Book 130, page 123
City of Keokuk - Deed Book 177, page 88

**CERTIFICATION:** This is to certify to FIRST AMERICAN TITLE INSURANCE COMPANY, LAWYERS TITLE INSURANCE COMPANY, BANKERS TRUST COMPANY, INDIVIDUALLY AND AS TRUST AGENTS, BANKERS TRUST (DELAWARE), BARCLAYS BANK PLC, SOCIETE GENERALE, THE BANK OF NEW YORK, N.A., BANQUE NATIONALE DE PARIS, PITTSBURGH NATIONAL BANK, THE BANK OF NEW YORK, DRESNER BANK, AG., BANCA COMMERCIALE ITALIANA, BANCO DI ROMA, AND THE ROYAL BANK OF CANADA: that this survey (I) was made on the ground as per the field notes shown hereon and correctly shows the boundary lines and dimensions of the subject property and each individual parcel, (II) correctly shows the location of all buildings, structures and other improvements, and visible items on the subject property, and (III) correctly shows the location and dimensions of all alleys, roads, rights-of-way, easements and other matter of record (with instrument, book and page number indicated, and (IV) -- (A) there are no other easements of rights-of-way in use or in evidence over or under the subject property, (B) nor any encroachment of improvements located on the subject property nor (C) any encroachment of improvements from adjoining property onto the subject property, (D) nor any encroachments by any improvements located on the subject property onto any easements affecting the subject property, other than those shown on said survey, (E) no part of the subject property is within an area designated on a Federal Flood Insurance Rate Map or Flood Hazard Boundary Map as having flood hazards. The above survey is in accordance with measurements and observations made by this surveyor on or about the 12th of May 1986 and certified on the 12th of May 1986. The surveyor makes no representations or warranties with regards to any changes which may have occurred to the parcel shown hereon since that date.

*Sheld L. Moughlin*  
Sheld L. Moughlin, Iowa L.E. #10676.

- LEGEND**
- o - Set 1/2" iron pin
  - e - Existing iron pin
  - x - Existing "x" cut in concrete

**SURVEYOR'S NOTE:**  
This photograph has not been corrected orthographically because of the extreme relief occurring on site.



NEW HAZARDOUS WASTE STORAGE AREA

OLD HAZARDOUS WASTE STORAGE AREA

LOCATION of BACKGROUND SAMPLES

Requested by: Bob Ernsberger, J.C. Andrus & Associates, Inc.		SHELLER GLOBE CORP - Keokuk, Iowa	
Shoemaker & Haaland Professional Engineers		PLAT OF SURVEY	
Coratulo	Keokuk	Sheet	1
Rev	Date	Description	By
			RLS
			PMB
			RLS
			GLT
Date: 5/12/86		Scale: 1"=100'	No: 89448-1